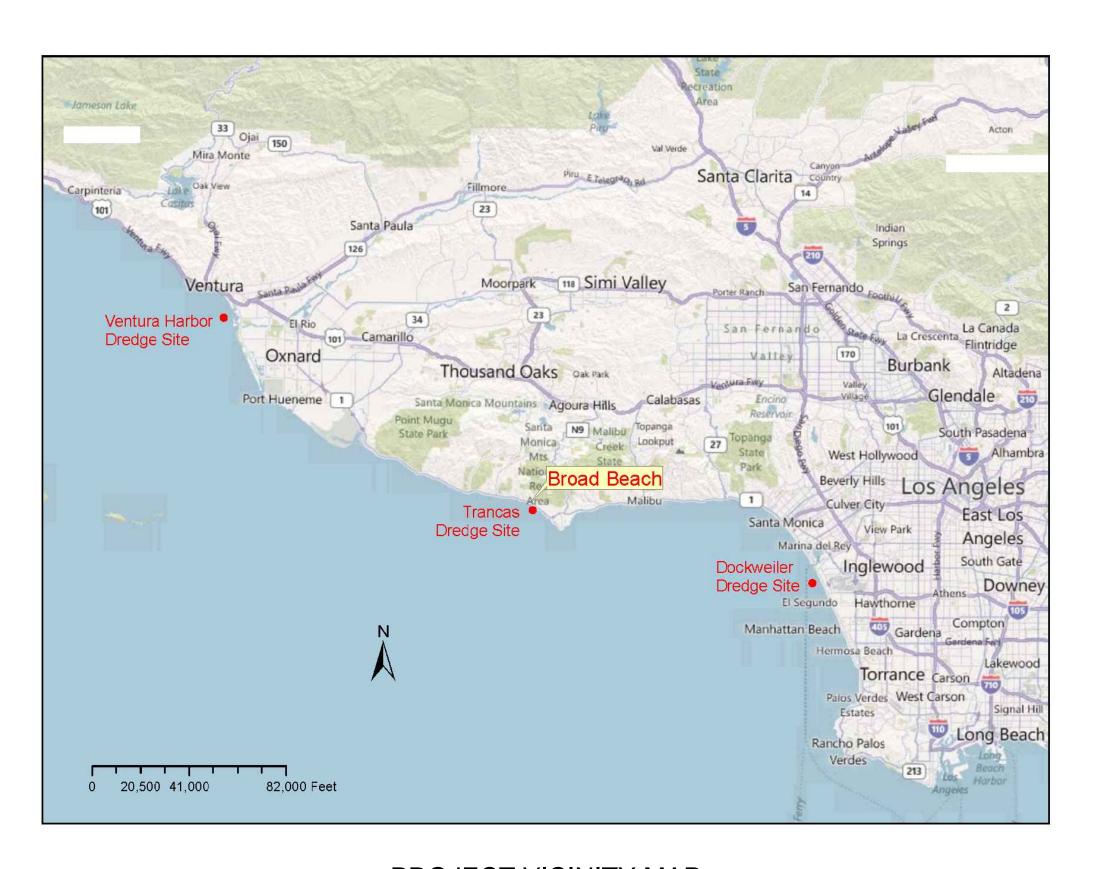
BROAD BEACH RESTORATION PROJECT

PREPARED FOR

BROAD BEACH GEOLOGIC HAZARD ABATEMENT DISTRICT (B.B.G.H.A.D.)



MOFFATT & NICHOL

BROAD BEACH VICINITY MAP

PROCEDURE OF SURVEY

HORIZONTAL DATUM WAS ESTABLISHED THROUGH STATIC GPS OBSERVATIONS. THE VERTICAL DATUM WAS GENERATED THROUGH AERIAL PHOTOGRAMMETRIC METHODS THROUGH PHOTOGRAPHY COLLECTED ON OCTOBER 15, 2009. SURVEY PERFORMED BY KDM MERIDIAN, LAKE FOREST, CA

HORIZONTAL DATUM

BEARINGS AND COORDINATES DERIVED FROM THIS MAP OR THE DIGITAL FILE THEREOF ARE IN TERMS OF THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE V (2000.35

ANY DISTANCES CALCULATED THEREFROM ARE GRID. TO OBTAIN GROUND DISTANCE, DIVIDE GRID DISTANCE BY THE COMBINATION FACTOR OF 1.00000597

VERTICAL DATUM

ALL ELEVATIONS SHOWN HEREON ARE IN TERMS OF MEAN LOWER LOW WATER (MLLW), TIDAL EPOCH 1983-2001.

REGION MAP NOT TO SCALE

PROJECT VICINITY MAP

DESIGN TEAM:

RUSSELL BOUDREAU, P.E. MOFFATT & NICHOL 3780 KILROY AIRPORT WAY, SUITE 600 LONG BEACH, CA 90806 TEL: (562) 426-9551 FAX: (562) 424-7489

LEAD AGENCY:

CALIFORNIA STATE LANDS COMMISSION DIVISION OF LAND MANAGEMENT 100 HOWE AVENUE, SUITE 100-SOUTH SACRAMENTO, CA 95825-8202

DIGALER

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

LEAD AGENCY CONTACTS:

CY R. OGGINS DIVISION CHIEF CALIFORNIA STATE LANDS COMMISSION DIVISION OF ENVIRONMENTAL PLANNING AND MANAGEMENT 100 HOWE AVENUE, SUITE 100—SOUTH SACRAMENTO, CA 95825-8202 (916) 574-1880 OFFICE (916) 574-1885 FAX

JASON RAMOS STAFF ENVIRONMENTAL SCIENTIST DIVISION OF ENVIRONMENTAL PLANNING AND MANAGEMENT CALIFORNIA STATE LANDS COMMISSION 100 HOWE AVENUE, SUITE 100-SOUTH SACRAMENTO, CA 95825-8202 (916) 574-1814 OFFICE (916) 574-1885 FAX

KENNETH FOSTER PUBLIC LAND MANAGEMENT SPECIALIST CALIFORNIA STATE LANDS COMMISSION DIVISION OF LAND MANAGEMENT 100 HOWE AVENUE, SUITE 100-SOUTH SACRAMENTO, CA 95825-8202 (916) 574-2555 OFFICE (916) 574-1925 FAX



LOCATION MAP

60% SUBMITTAL

				PROFES.
				REG / S/S/S/S/S/S/S/S/S/S/S/S/S/S/S/S/S/S/
				★ EXP. <u>3/3</u>
				STATE OF CA
).	REVISION	BY	DATE	

PROFESSIONAL H. BOUDDER EXP. 3/31/14 ** ** ** ** ** ** ** ** **
STATE OF CALIFORNIA

MOFFATT & NICHOL			
IED BY	Aaron Holloway, P.E.	CHECKED BY	Chris Webb
I BY	S. Salazar	IN CHARGE	Russell Boudreau, P.E.

BROAD BEACH RESTORATION PROJECT California State Lands Commission

> TITLE SHEET, VICINITY MAP, **LOCATION MAP**

SCALE	DATE
NONE	OCT. 2013
JOB NO.	
693	5-02
SHEET 1 O	F 42
Т	⁻ -1

- 2. THESE IMPROVEMENTS CONSIST OF WORK CALLED FOR ON THESE PLANS ONLY.
- 3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE STARTING WORK.
- 4. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF SCALED DIMENSIONS ON ANY PLAN. ALL DIMENSIONS SHALL BE AS DESIGNATED ON THE PLANS.
- 5. THE CONTRACTOR SHALL PROTECT ALL PUBLIC AND PRIVATE PROPERTY DURING THE PERFORMANCE OF WORK DONE UNDER THE CONTRACT. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO AVOID ANY DAMAGE TO ANY STRUCTURES ADJACENT TO THE PROJECT BOUNDARIES. THE CONTRACTOR SHALL ALSO PROVIDE FOR THE PROTECTION OF THE PUBLIC USING THE BEACH. PHOTOS OF BEFORE AND AFTER PROJECT CONDITIONS SHALL BE TAKEN BY THE CONTRACTOR.
- 6. EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORDS OF PARENT UTILITY COMPANIES AND MAY NOT ACCURATELY REPRESENT THEIR ACTUAL LOCATIONS. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATIONS (VERTICAL AND HORIZONTAL) OF ALL UTILITIES IN THE FIELD OR COORDINATE SUCH INDEPENDENT VERIFICATION WITH THE PARENT UTILITY COMPANIES AND PROVIDE THE STATE WITH THE POTHOLE INFORMATION. THE CONTRACTOR SHALL PROTECT IN PLACE OR COORDINATE WITH THE PARENT COMPANY FOR THE RELOCATION OF CONFLICTING UTILITIES ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT 1-800-277-2600 TWO (2) DAYS PRIOR TO ANY EXCAVATION WORK.
- 7. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION FOR THIS PROJECT. THIS INCLUDES THE SAFETY OF ALL PERSONS AND PROPERTY AND THAT THE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE STATE OF CALIFORNIA AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FROM LIABILITY ARISING FROM THE NEGLIGENCE OF THE STATE OF CALIFORNIA OR THE ENGINEER.

ENVIRONMENTAL PROTECTION REQUIREMENTS

- A. CONTRACTOR SHALL:
- 1. PROVIDE AND MAINTAIN ENVIRONMENTAL AND PROPERTY PROTECTION AS SPECIFIED.
- 2. PLAN FOR AND PROVIDE ENVIRONMENTALLY PROTECTIVE MEASURES TO CONTROL POLLUTION THAT DEVELOPS DURING NORMAL CONSTRUCTION PRACTICE AND DURING THE CONSTRUCTION OF PERMANENT OR TEMPORARY ENVIRONMENTAL FEATURES ASSOCIATED WITH THIS PROJECT.
- 3. COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS PERTAINING TO THE ENVIRONMENT, INCLUDING BUT NOT LIMITED TO WATER, AIR AND NOISE POLLUTION.
- B. PRECONSTRUCTION SURVEY

CONTRACTOR SHALL PERFORM A PRECONSTRUCTION INSPECTION AND MAKE A VIDEO RECORD OF THE PROJECT SITE AND AREAS TO BE USED BY THE CONTRACTOR, WITH THE OWNERS OR THE OWNER'S REPRESENTATIVE TO ESTABLISH THE EXISTING CONDITION OF IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, PAVEMENT, SIDEWALKS, CURBS AND CURBS AND GUTTERS, FENCES AND GATES, TREES AND SHRUBS, SIGNS, AND SIMILAR OBJECTS THAT ARE TO BE PROTECTED IN PLACE.

C. PROTECTION

CONTRACTOR SHALL PRESERVE THE NATURAL RESOURCES AND PROPERTY WITHIN THE PROJECT BOUNDARIES AND OUTSIDE THE LIMITS OF PERMANENT WORK. DAMAGED PROPERTY AND IMPROVEMENTS SHALL BE RESTORED TO AN EQUIVALENT OR IMPROVED CONDITION UPON COMPLETION OF WORK AND PRIOR TO FINAL PAYMENT, AT CONTRACTOR'S SOLE EXPENSE. CONTRACTOR'S OPERATIONS SHALL BE CONFINED TO THE SMALLEST AREAS PRACTICAL, CONSISTENT WITH THE REQUIREMENTS OF THE PROJECT.

CONTROL AND DISPOSAL OF SOLID AND SANITARY WASTES

- A. CONTRACTOR SHALL PICK UP SOLID WASTES, AND PLACE IN CONTAINERS WHICH ARE REGULARLY EMPTIED.
- B. CONTRACTOR SHALL HAUL RUBBISH AND DEBRIS TO AN APPROVED DISPOSAL SITE LICENSED TO ACCEPT THE TYPE OF MATERIALS BEING DISPOSED.
- C. CONTRACTOR SHALL PROVIDE, MAINTAIN, AND REMOVE AT THE COMPLETION OF WORK, CHEMICAL TOILETS OR SIMILARLY EFFECTIVE UNITS IN SUFFICIENT QUANTITY TO PROVIDE FOR THE COMFORT AND HEALTH OF ALL PERSONS EMPLOYED IN THE WORK.
- D. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH PERMIT REQUIREMENTS.

ABBREVIATIONS

APPROX. APPROXIMATE

CMP CORRUGATED METAL PIPE

CPP CORRUGATED PLASTIC PIPE

CY CUBIC YARD ELEVATION

FT FEET
GPS GLOBAL POSITIONING SYSTEM
HORIZ HORIZONTAL

INV INVERT
LA LOS ANGELES
MAX MAXIMUM

MHHW MEAN HIGHER HIGH WATER
MHT MEAN HIGH TIDE
MHW MEAN HIGH WATER
MLW MEAN LOW WATER

MLLW MEAN LOWER LOW WATER MOD MODIFIED

MSL MEAN SEA LEVEL

NAVD88 NORTH AMERICAN VERTICAL DATUM
NO NUMBER

NOAA/NOS NATIONAL OCEANIC AND ATMOSPHERIC
ADMINISTRATION/NATIONAL OCEAN SERVICE
OCT OCTOBER

ONSITE WASTEWATER TREATMENT SYSTEM

RD ROAD STATION

OWTS

TBD TO BE DETERMINED TYP TYPICAL

USA UNITED STATES OF AMERICA

VERT VERTICAL

CUEET NO	INDEX OF DRAWING				
SHEET NO.	SHEET CODE	SHEET TITLE			
	T-1	TITLE SHEET, VICINITY MAP, LOCATION MAP			
2	T-2	GENERAL NOTES, ABBREVIATIONS, INDEX OF DRAWINGS			
3	CS-1	SITE PLAN			
4	CS-2	CONSTRUCTION ACCESS AND STAGING PLAN			
5	CS-3	TRAFFIC CONTROL PLAN			
6	C-1	SHEET LAYOUT PLAN			
7	C-2	BEACH FILL PLAN STA 10+00 TO STA 21+50			
8	C-3	BEACH FILL PLAN STA 21+50 TO STA 32+00			
9	C-4	BEACH FILL PLAN STA 32+00 TO STA 42+50			
10	C-5	BEACH FILL PLAN STA 42+50 TO STA 53+00			
11	C-6	BEACH FILL PLAN STA 53+00 TO STA 63+50			
12	C-7	BEACH FILL PLAN STA 63+50 TO STA 74+00			
13	XS-1	TYPICAL BEACH FILL SECTION STA 12+00 TO STA 23+50			
14	XS-2	TYPICAL BEACH FILL SECTION STA 28+00 TO STA 43+00			
15	XS-3	TYPICAL BEACH FILL SECTION STA 48+00 TO STA 67+00			
16	SD-1	STORM DRAIN PLAN & PROFILE STA 30+45.64			
17	SD-2	STORM DRAIN PLAN & PROFILE STA 44+21.70			
18	SD-3	STORM DRAIN PLAN & PROFILE STA 47+35.62			
19	SD-4	STORM DRAIN PLAN & PROFILE STA 60+44.75			
20	L-1	BEACH NOURISHMENT & DUNE RESTORATION TYPICAL SECTIONS			
21	L-2	BEACH NOURISHMENT & DUNE RESTORATION TYPICAL SECTIONS			
22	L-3	BEACH NOURISHMENT & DUNE RESTORATION TYPICAL SECTIONS BEACH NOURISHMENT & DUNE RESTORATION CYPICAL SECTIONS			
23	L-4	DUNE RESTORATION PLANT LEGEND & DUNE PROTOTYPE			
24	L-5	TYPICAL DUNE NUMMORK RADING & PLANTING PLAN			
25	L-6	TYPICAL DUNE HUMMOCK GRADING & PLANTING PLAN			
26	D 60% [TYPICAL DUNE HUMMOCK GRADING & PLANTING PLAN			
-,271CF		TYPICAL DUNE HUMMOCK GRADING & PLANTING PLAN			
BF A12	L-9	TYPICAL DUNE HUMMOCK GRADING & PLANTING PLAN			
23	L-TO	TYPICAL DUNE HUMMOCK GRADING & PLANTING PLAN			
30	MR-1	MAINTENANCE REACH AREAS FOR SAND BACKPASSING			
31	MR-2	TAKE AREA AT MR 408 AND MR 409 FOR SAND BACKPASSING			
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33	BR-1	BEACH RE-NOURISHMENT SHEET LAYOUT PLAN			
34	BR-2	BEACH RE-NOURISHMENT PLAN STA 10+00 TO STA 21+50			
35	BR-3	BEACH RE-NOURISHMENT PLAN STA 21+50 TO STA 32+00			
36	BR-4	BEACH RE-NOURISHMENT PLAN STA 32+00 TO STA 42+50			
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39	BR-7	BEACH RE-NOURISHMENT PLAN STA 63+50 TO STA 74+00			
40	XS-4	TYPICAL RE-NOURISHMENT SECTION STA 12+00 TO STA 23+50			
41	XS-5	TYPICAL RE-NOURISHMENT SECTION STA 28+00 TO STA 43+00			
42	XS-6	TYPICAL RE-NOURISHMENT SECTION STA 48+00 TO STA 67+00			

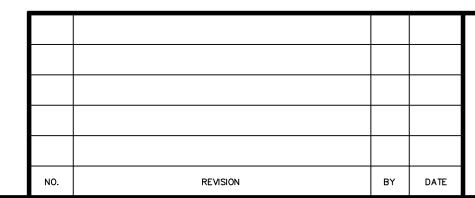
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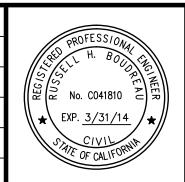
WATER LEVELS AT BROAD BEACH (TIDAL EPOCH 1983-2001)

WATER LEVEL	ELEVATION TO MLLW VERTICAL DATUM
EXTREME HIGH (OBSERVED JANUARY 27, 1983)	+7.8 FEET
MEAN HIGHER HIGH WATER (MHHW)	+5.5 FEET
MEAN HIGH WATER (MHW)	+4.7 FEET
MEAN SEA LEVEL (MSL), 1983-2001 EPOCH	+2.8 FEET
NATIONAL GEODETIC VERTICAL DATUM — 1929 (NGVD29)	+2.6 FEET
MEAN LOW WATER (MLW)	+0.9 FEET
NORTH AMERICAN VERTICAL DATUM — 1988 (NAVD88)	+0.2 FEET
MEAN LOWER LOW WATER (MLLW)	0.0 FEET
EXTREME LOW (OBSERVED DECEMBER 17, 1933)	-2.7

BASED ON LOS ANGELES OUTER HARBOR TIDE STATION (NOAA/NOS, 2008)

60% SUBMITTAL





MOFFATT & NICHOL				
Aaron Holloway, P.E.	CHECKED BY Chris Webb			
S. Salazar	IN CHARGE Russell Boudreau, P.E.			

BROAD BEACH RESTORATION PROJECT
California State Lands Commission
GENERAL NOTES, ABBREVIATIONS,

INDEX OF DRAWINGS

SCALE DATE
NONE OCT. 2013

JOB NO.
6935-02

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T-2

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

DIAL TOLL FREE

DIGALERT

DRAWING SCALES SHOWN BASED ON 22"X34" DRAWING

100% FINAL

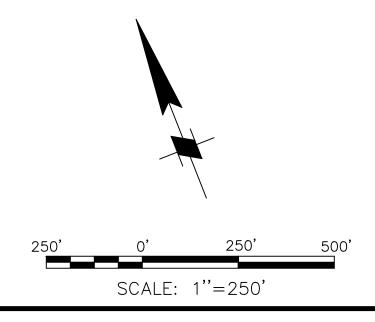
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CONCEPT

STATUS







60% SUBMITTAL

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NO.	REVISION	BY	DATE	

PROFESSIONAL FIRE NO. CO41810 NO. CO41810
EXP. 3/31/14 STATE OF CALLED RAILE

DRAWN BY S. Salazar

		MOFF	ATT	& NIC	CHO	
Aaron	Holloway,	P.E.	CHECKED BY	Chris	Webb	

IN CHARGE Russell Boudreau, P.E.

BROAD BEACH RESTORATION PROJECT
California State Lands Commission

SITE PLAN

SCALE	DATE	
1"=250'	OCT. 2013	
JOB NO.		
6935-02		
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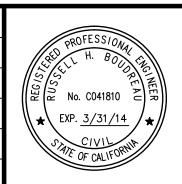


STAGING AREA #1: ZUMA COUNTY BEACH PARKING LOT #12

DIGALERT

					60% SUBMITTA	4L	1
0'	0'	40'	80'				
	SCALE: 1	1"=40'		NO.	REVISION	BY	D.

			PROFESSION BY BY BY CIVIL SATE OF CALIF
REVISION	BY	DATE	STATE OF CALIFO

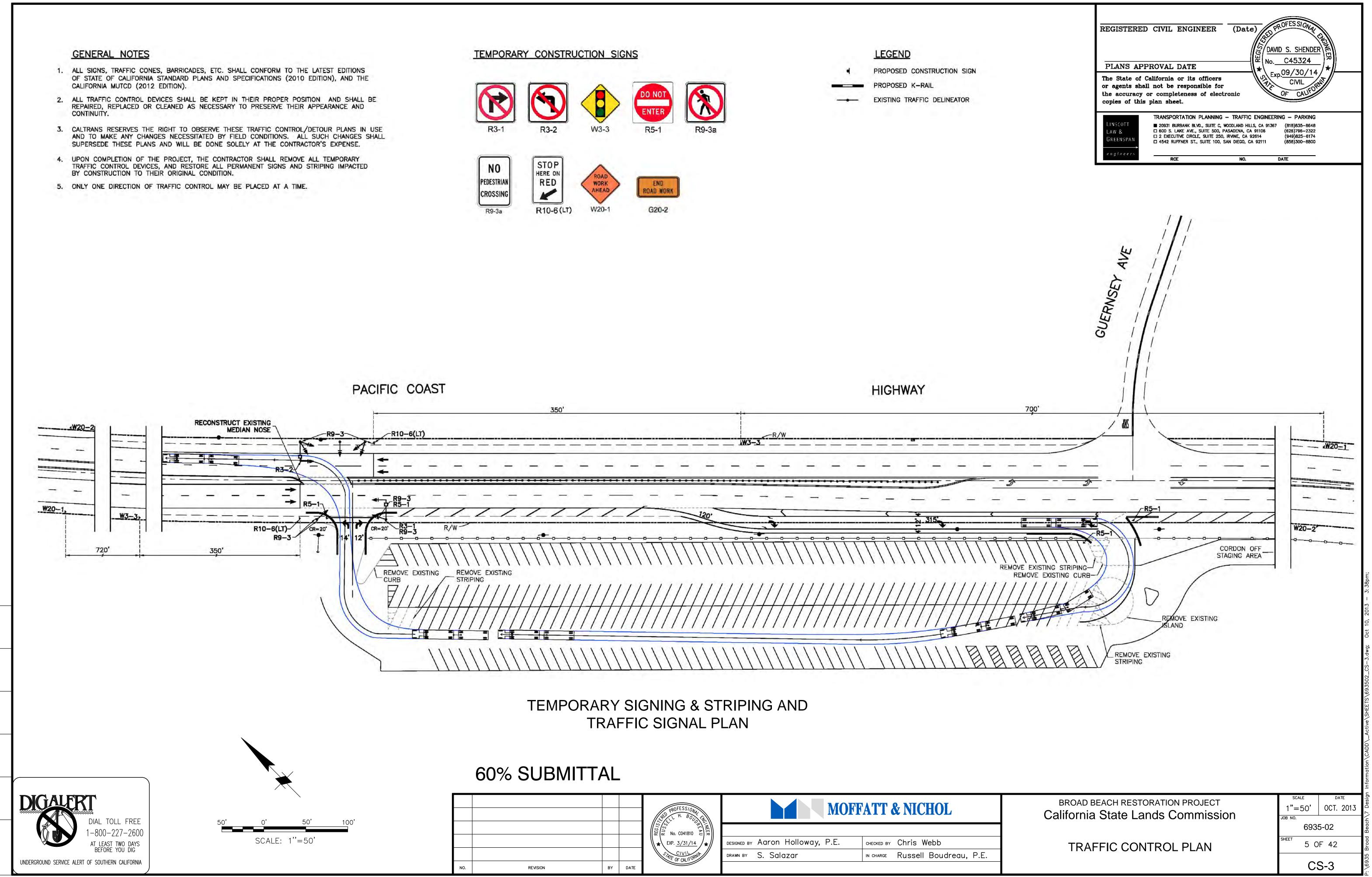


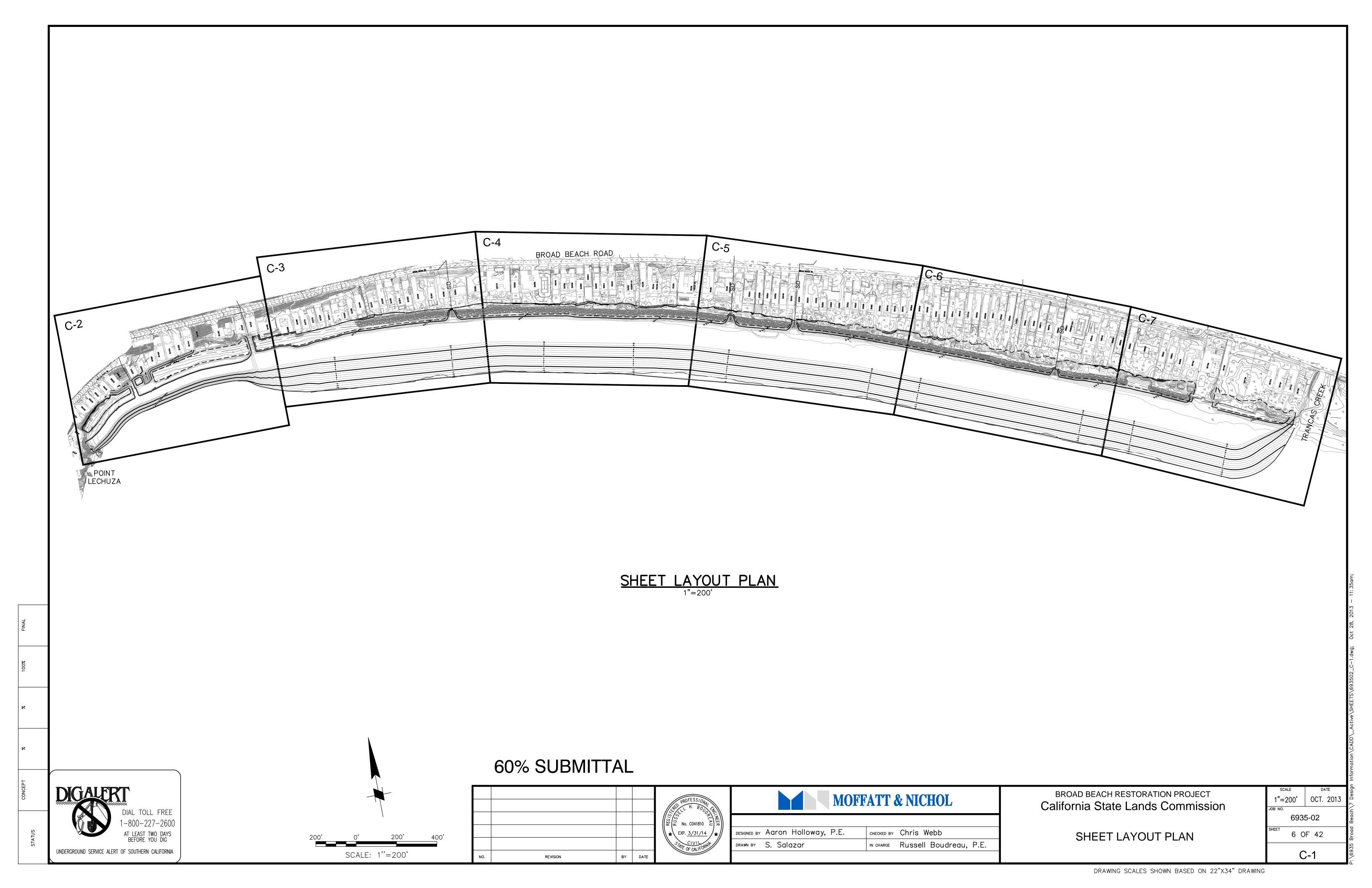
MOFFATT & NICHOL			
NED BY Aaron Holloway, P.E.	CHECKED BY Chris Webb		
м вү S. Salazar	IN CHARGE Russell Boudreau, P.E.		

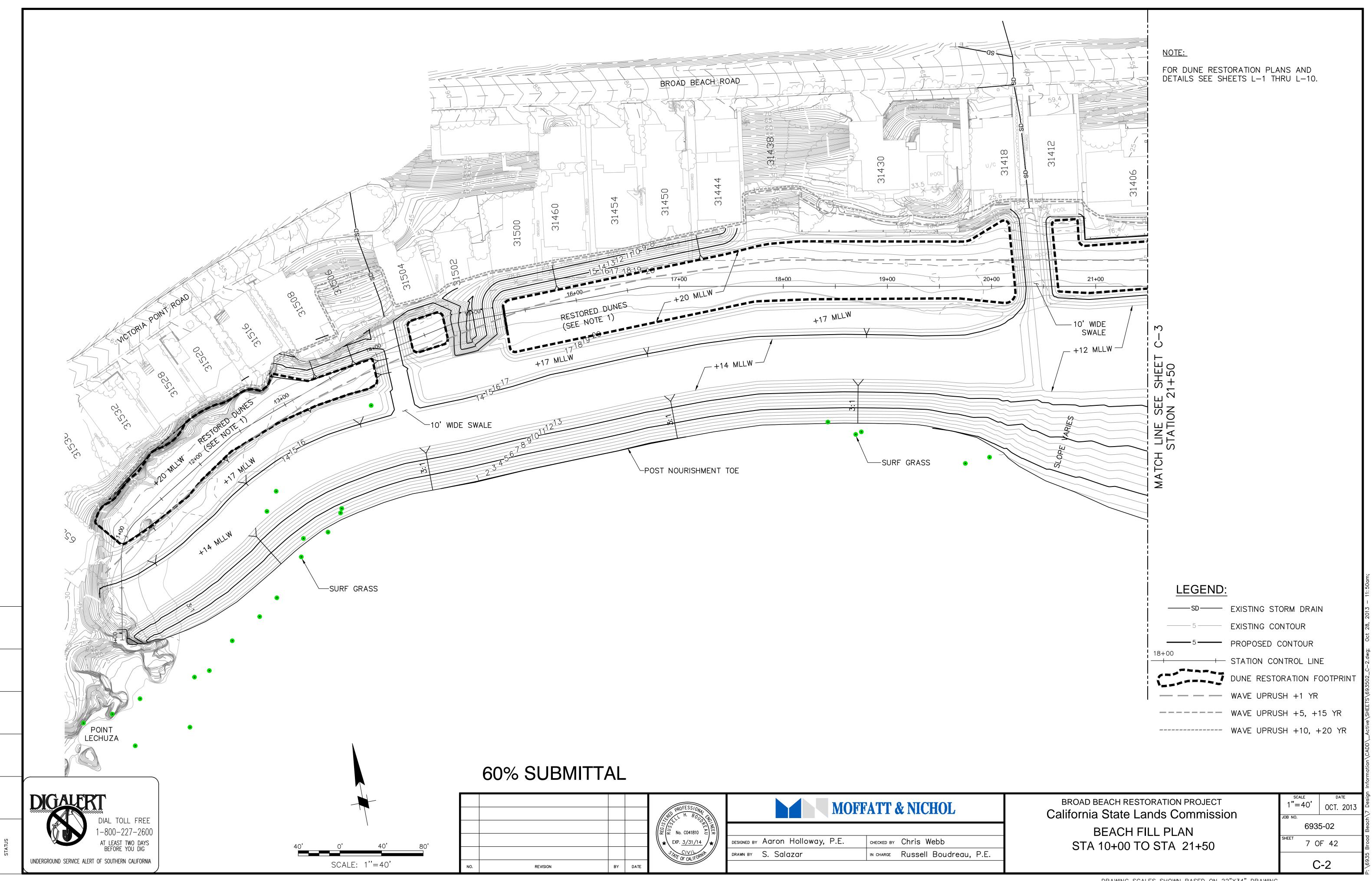
BROAD BEACH RESTORATION PROJECT California State Lands Commission

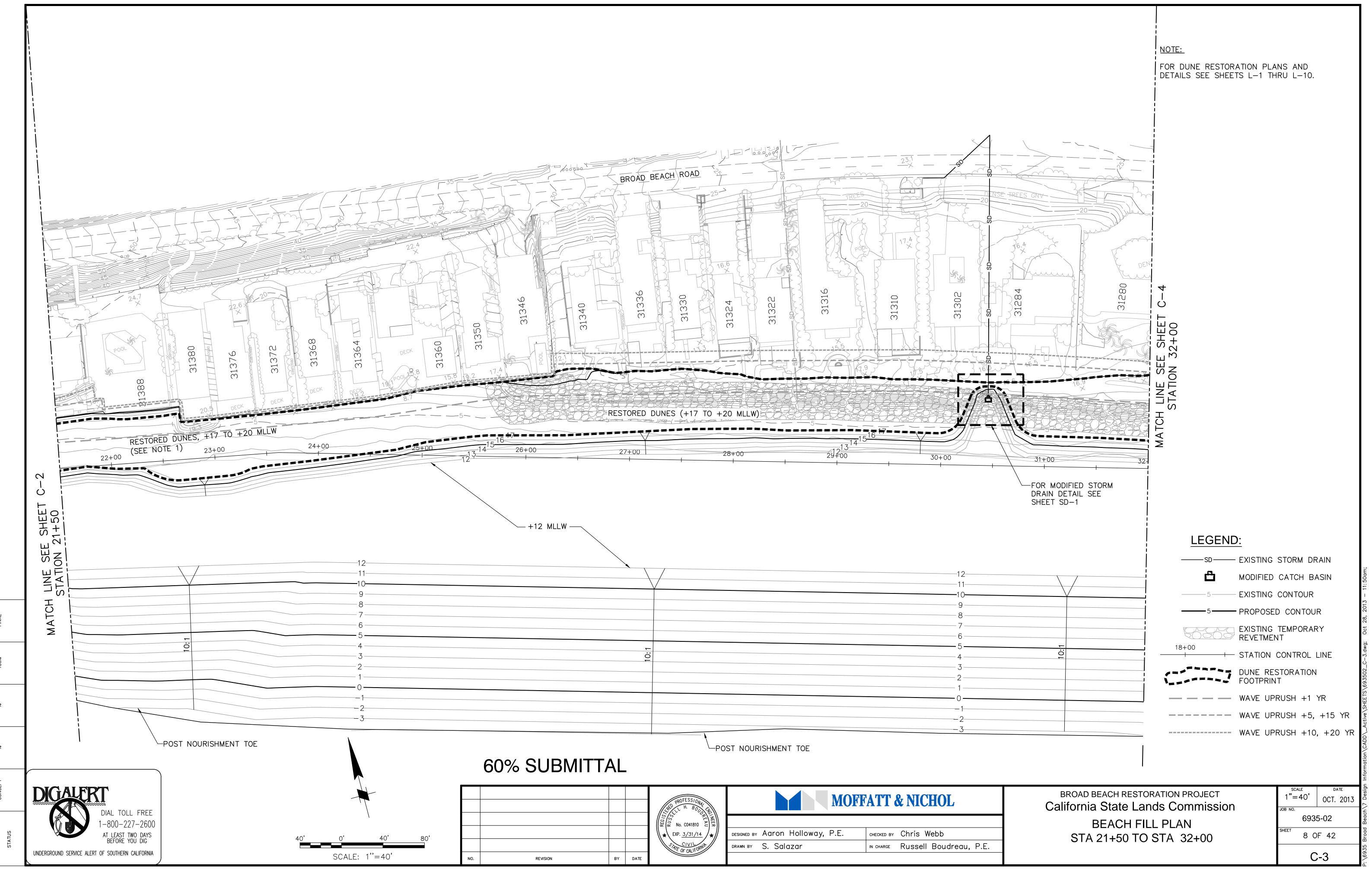
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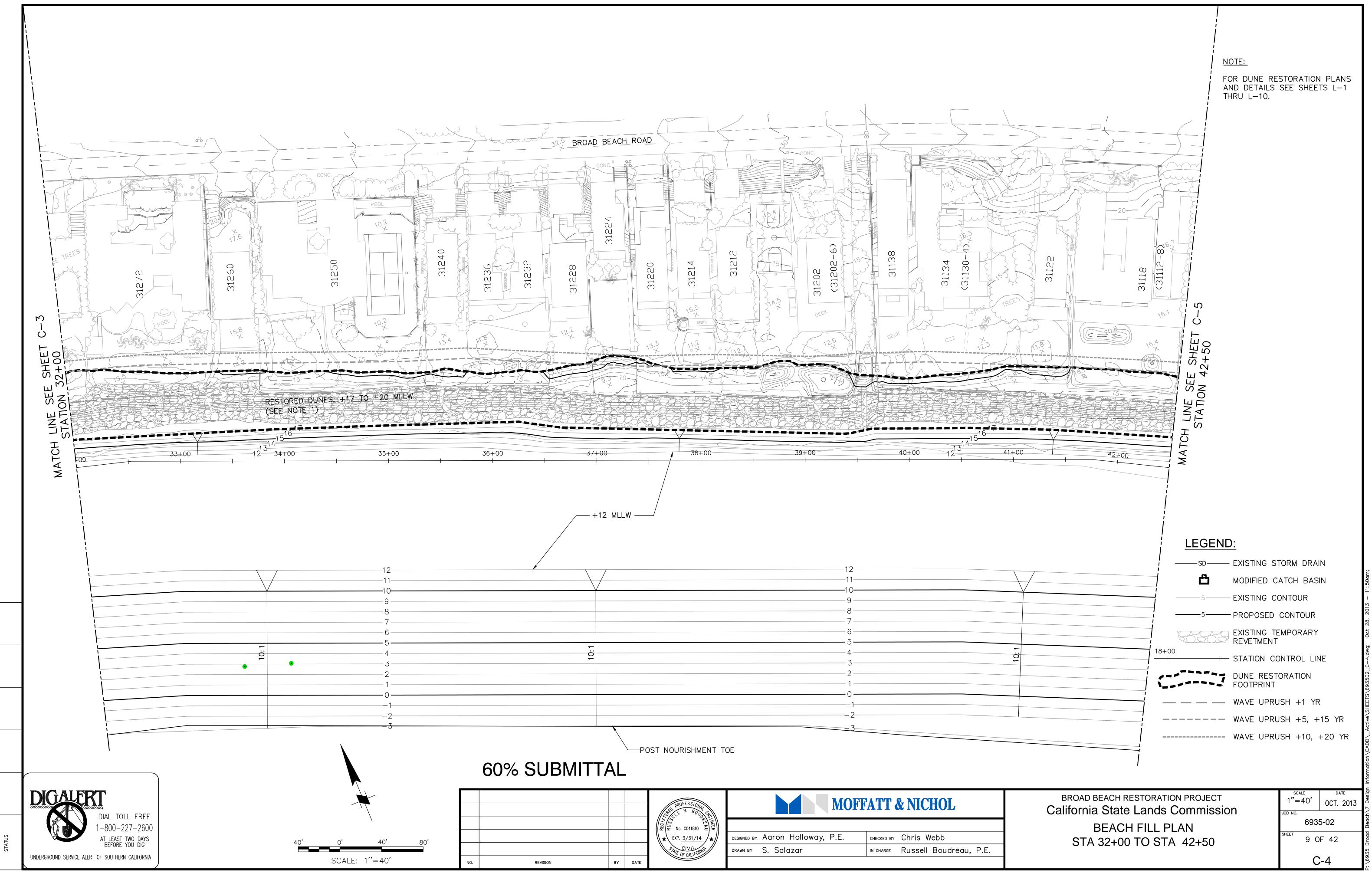
		Beach\7 Design Info
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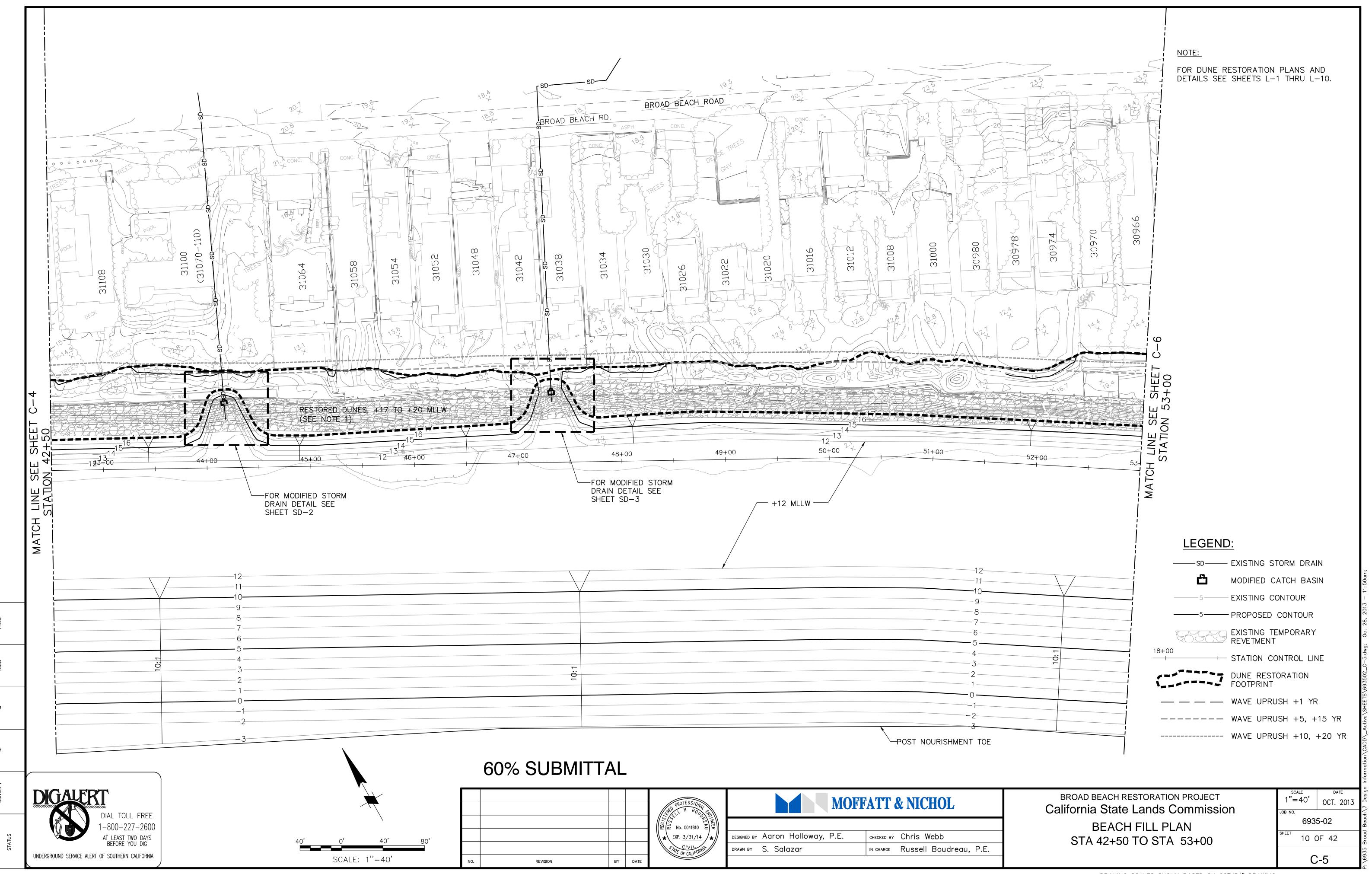


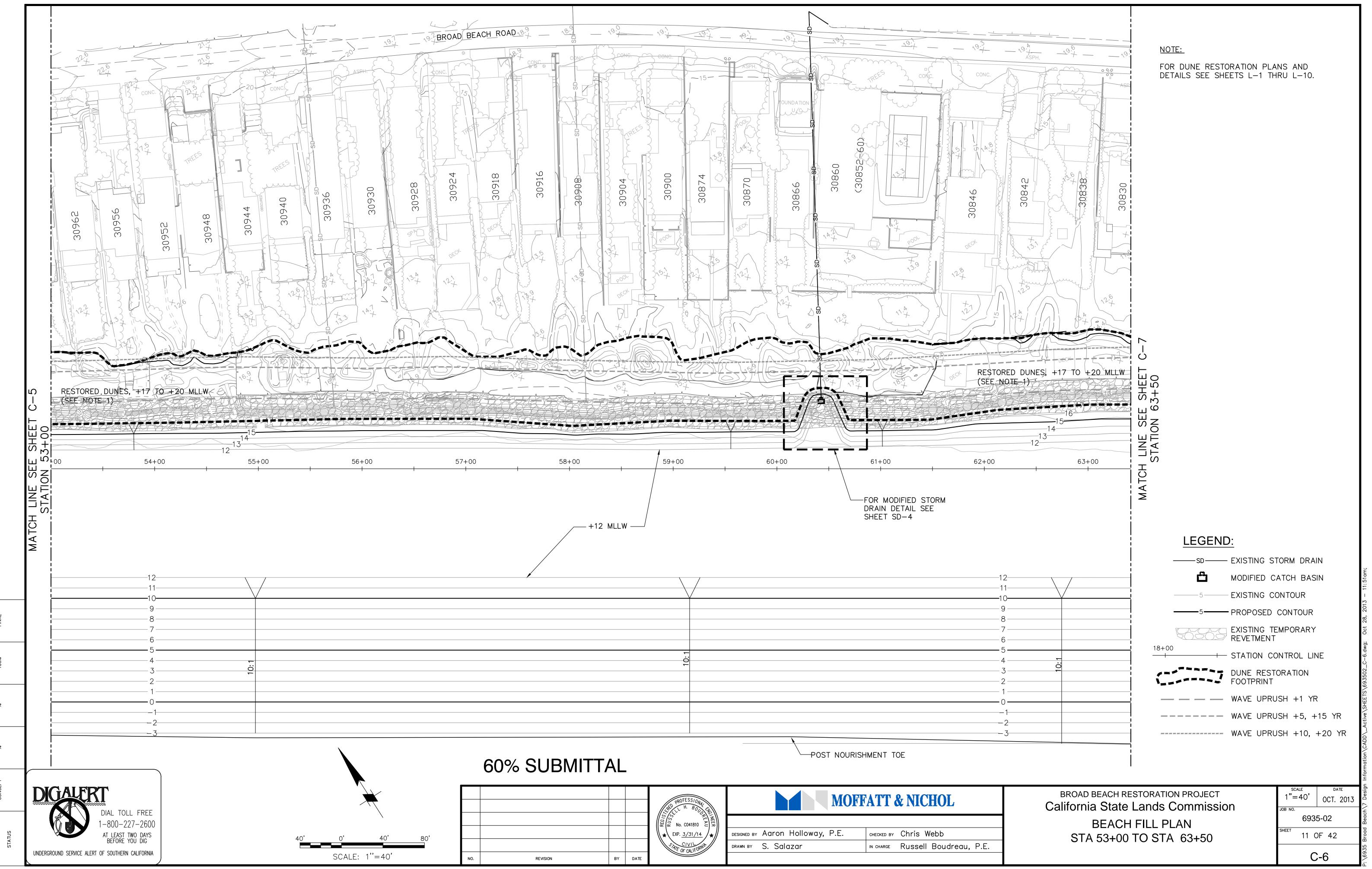


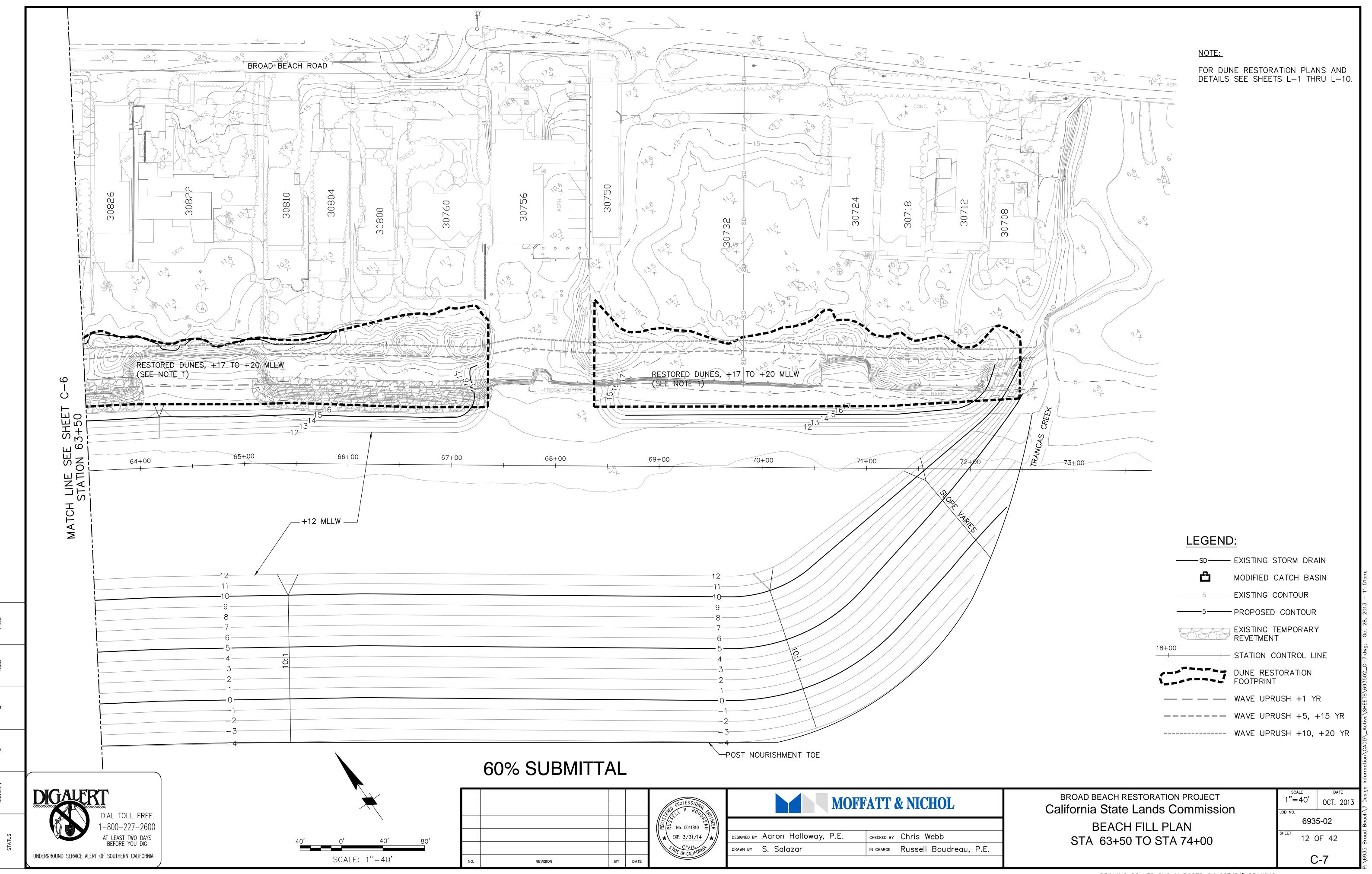


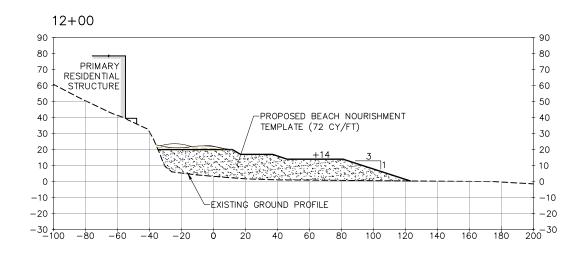


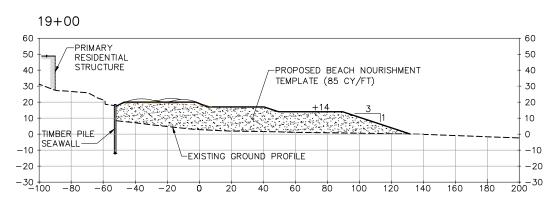


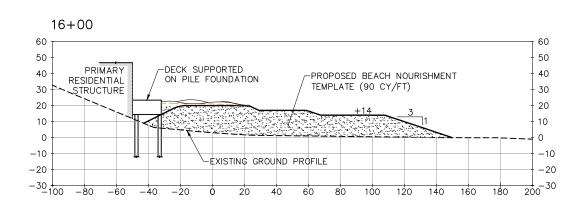


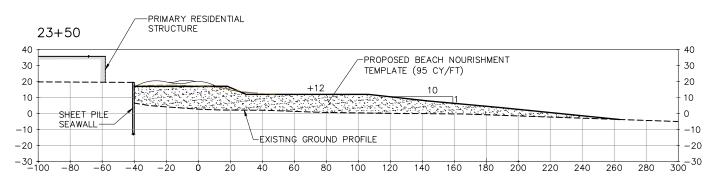












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MOFFATT & NICHOL

DRAIN BY S. Salazar OHECKED BY Chris Webb

OHECKED BY Chris Webb

N CHARGE RUSSEll Boudreau, P.E.

BROAD BEACH RESTORATION PROJECT
California State Lands Commission
TYPICAL BEACH FILL SECTIONS
STA 12+00 TO STA 23+50

SCALE DATE

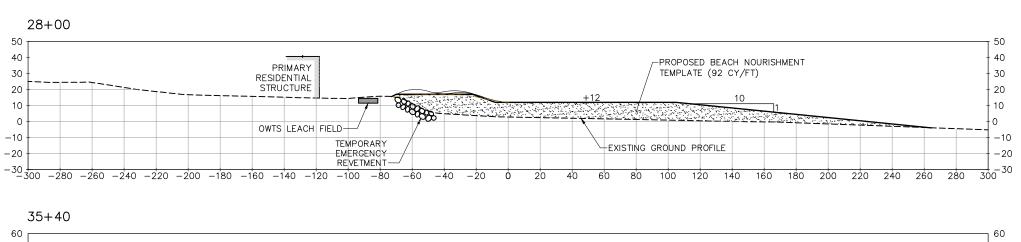
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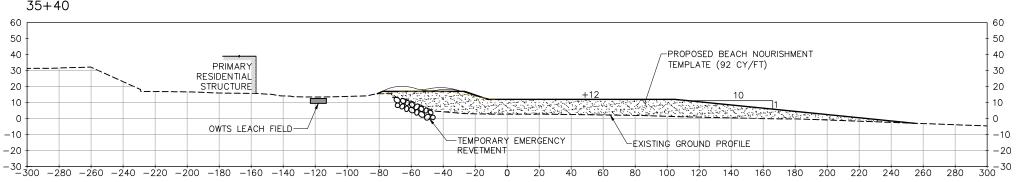
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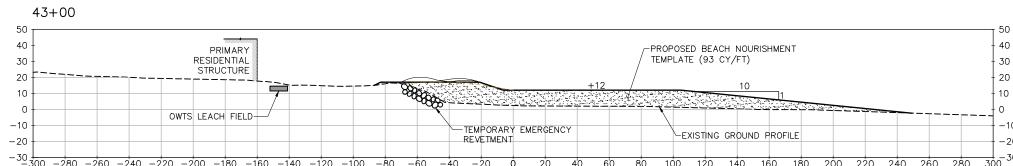
6935-02

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XS-1

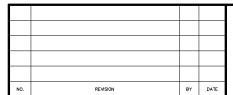






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60% SUBMITTAL







снескер ву Chris Webb

IN CHARGE Russell Boudreau, P.E.

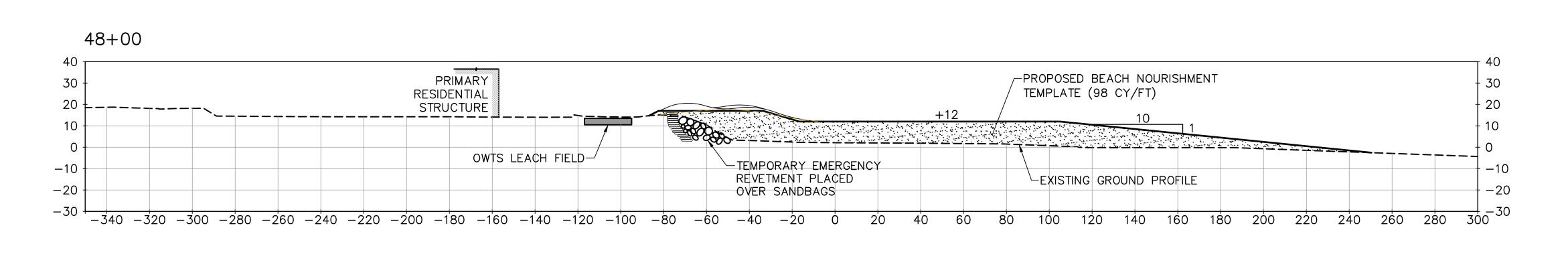
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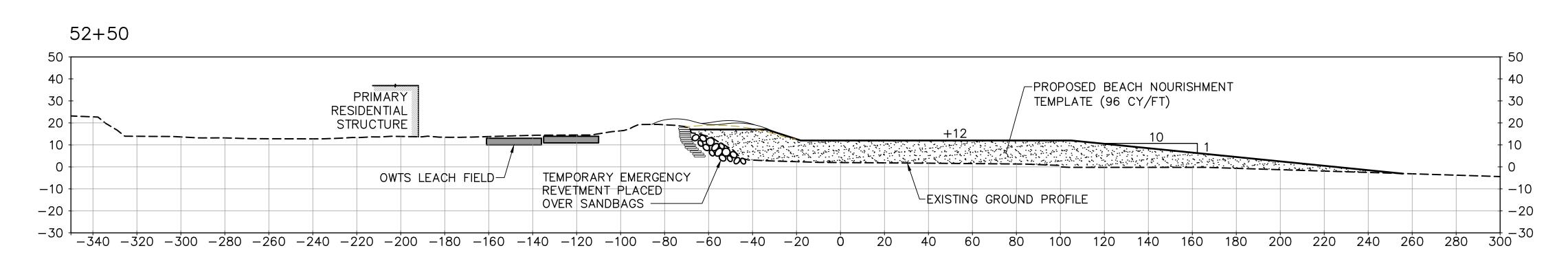
DRAWN BY S. Salazar

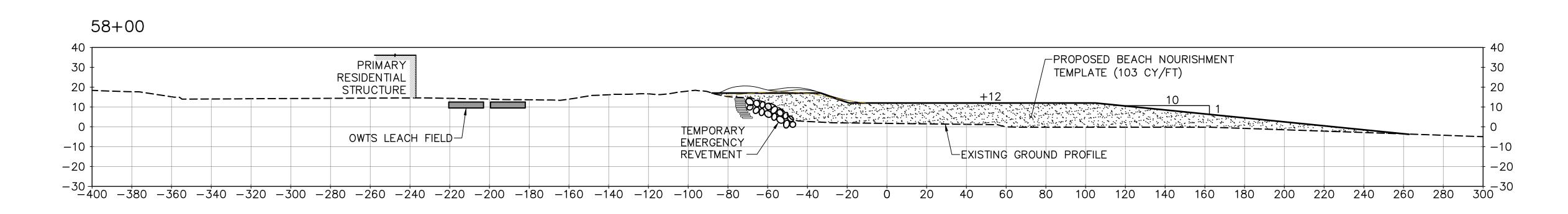
California State Lands Commission TYPICAL BEACH FILL SECTIONS STA 28+00 TO STA 43+00

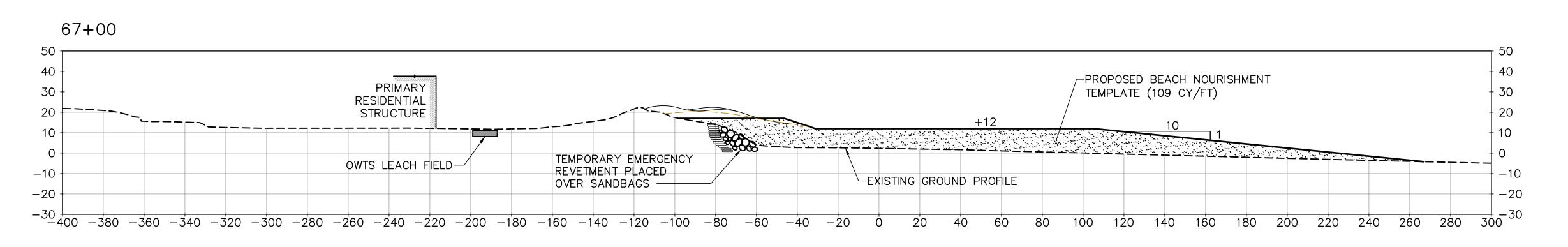
BROAD BEACH RESTORATION PROJECT

1"=30' OCT. 2013 6935-02 14 OF 42 XS-2

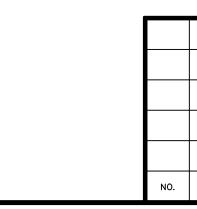


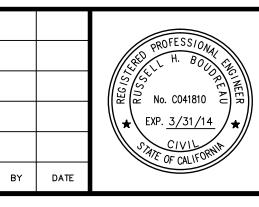


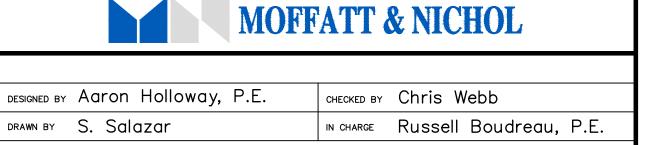




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BROAD BEACH RESTORATION PROJECT
California State Lands Commission
TYPICAL BEACH FILL SECTIONS
STA 48+00 TO STA 67+00

SCALE DATE

1"=30' OCT. 2013

JOB NO.

6935-02

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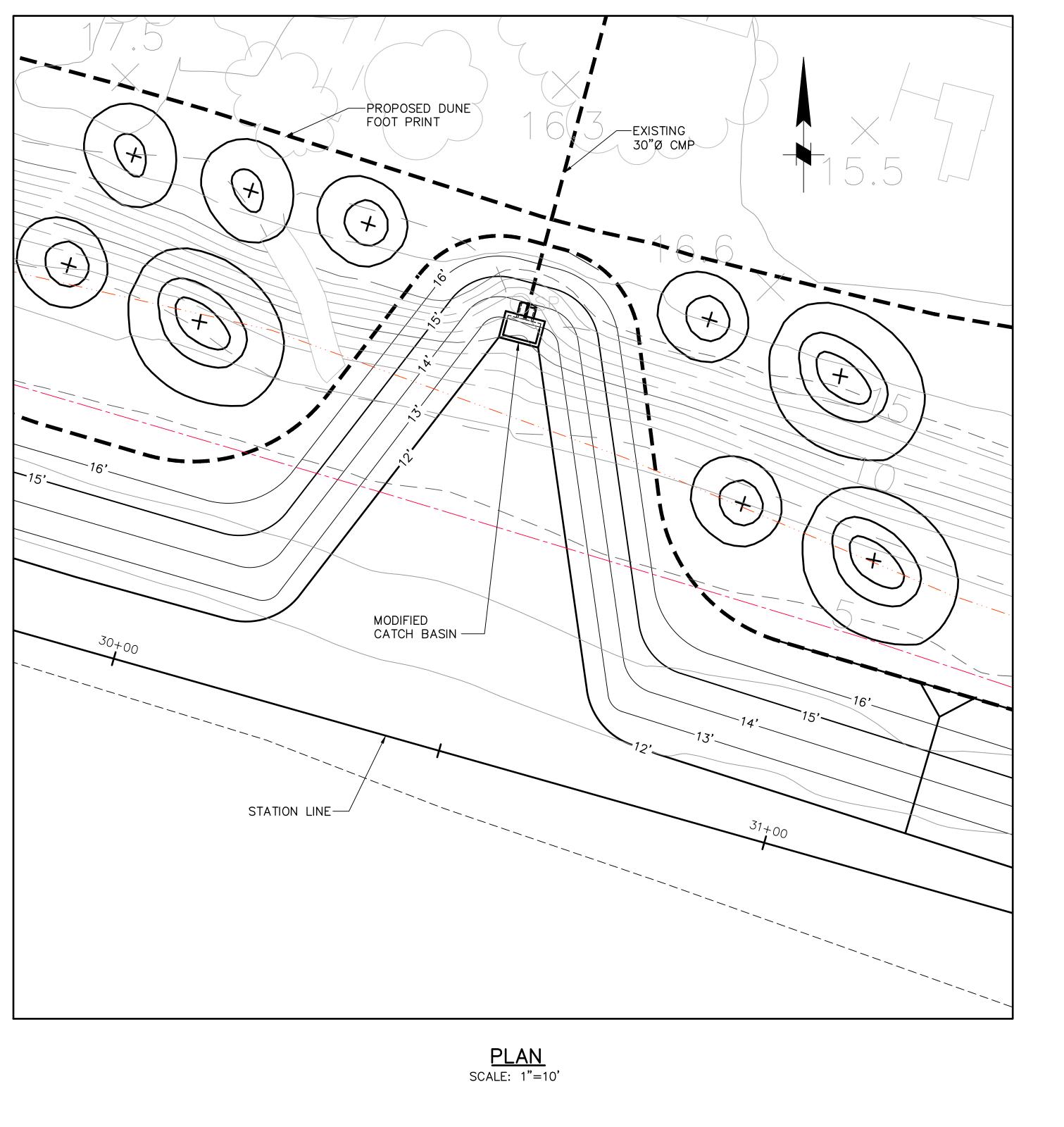
XS-3

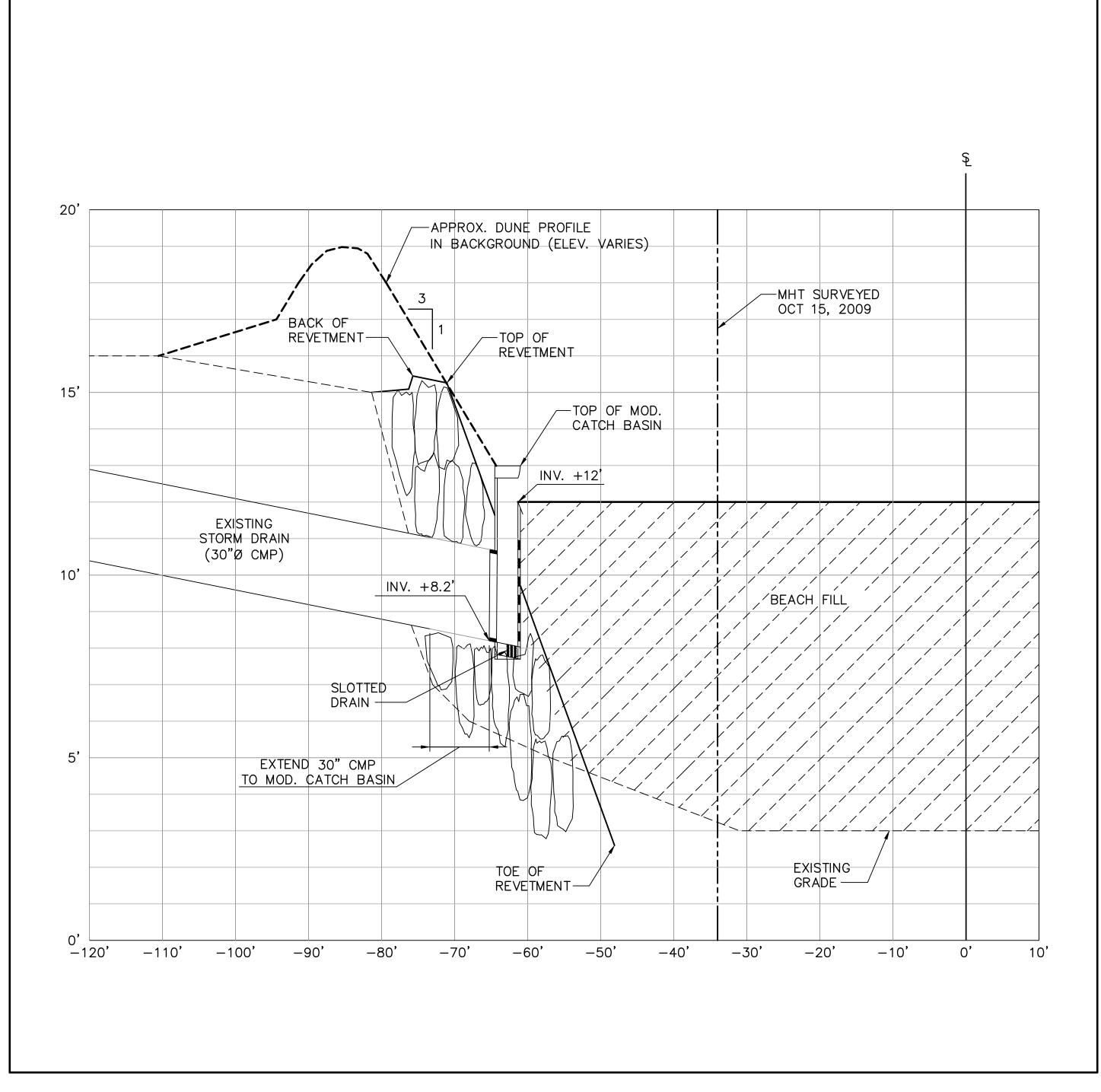
1-800-227-2600

AT LEAST TWO DAYS
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

DIGALERT





PROFILE

SCALE: HORIZ. = 1"=10'

VERT. = 1/2"=1'-0"

NOTE: ALL ELEVATIONS ARE IN REFERENCE TO THE MLLW DATUM.

60% SUBMITTAL



10'	0'	10'	20'
	SCALE:	1''_10'	
-1 -11			
2'-0"	0'-0''	2'-0"	4'-0"
	SCALE: 1/	/2"=1'-0"	-

o'					
-0"					
J					, The state of the
	NO.	REVISION	BY	DATE	



MOFI	FATT & NICHOL
ESIGNED BY Aaron Holloway, P.E.	CHECKED BY Chris Webb
rawn by S. Salazar	IN CHARGE Russell Boudreau, P.E.

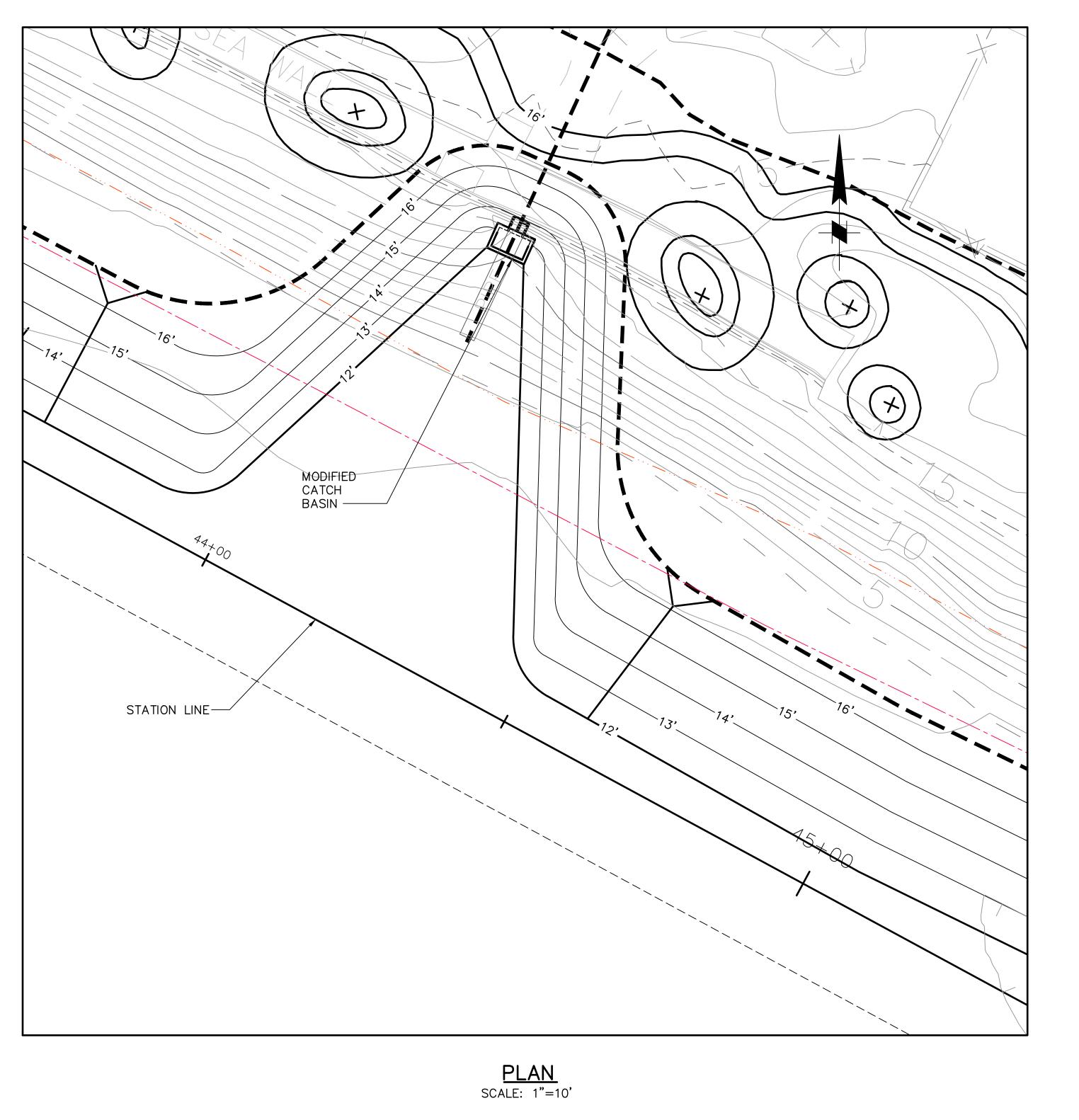
BROAD BEACH RESTORATION PROJECT
California State Lands Commission
STORM DRAIN PLAN & PROFILE
STA 30+45.64

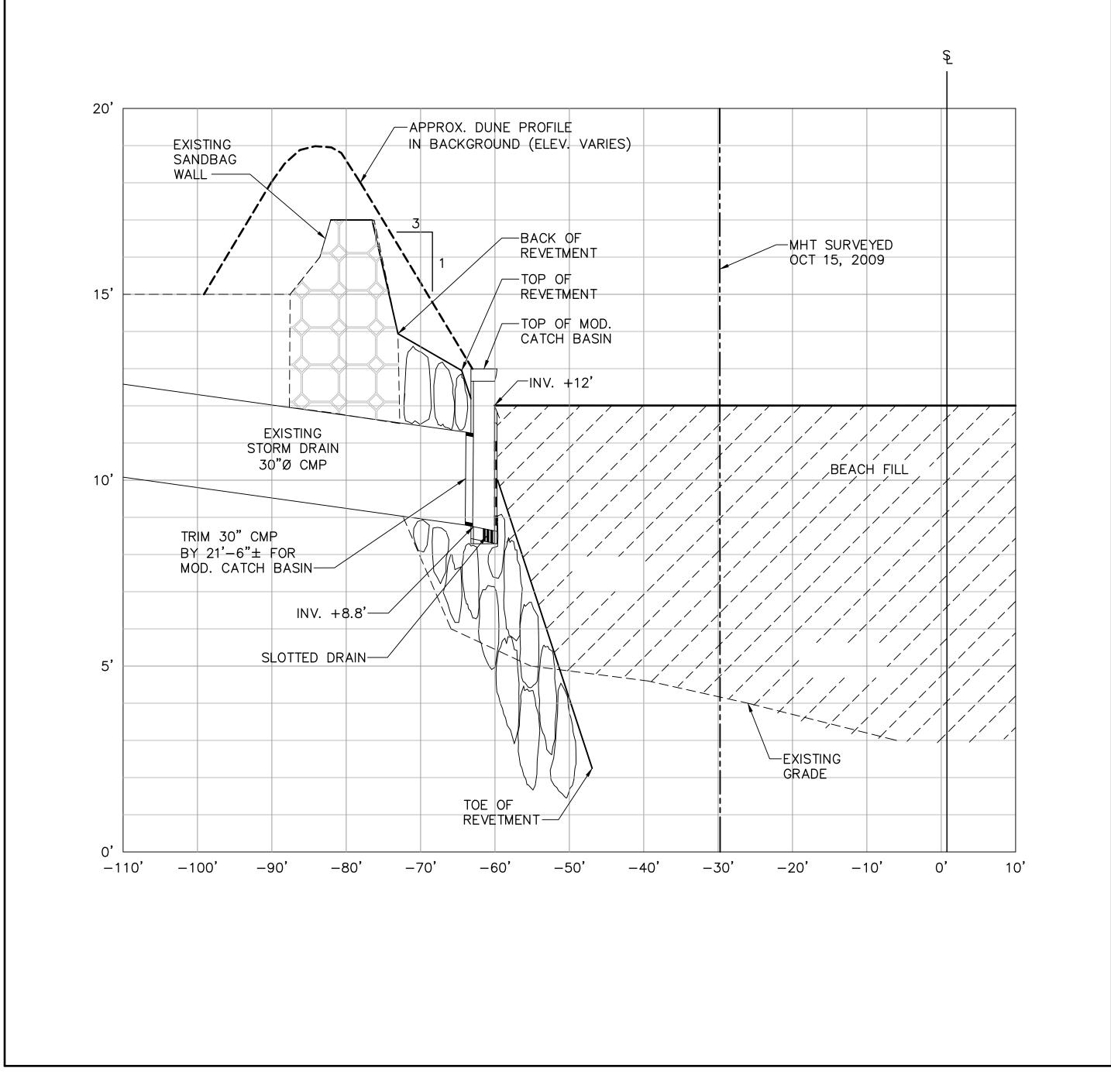
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AS SHOWN OCT. 2013

JOB NO.
6935-02

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16 OF 42

SD-1





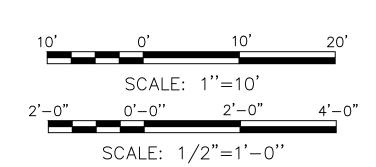
PROFILE

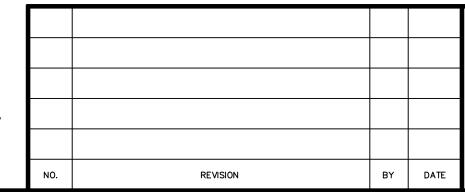
SCALE: HORIZ. = 1"=10" VERT. = 1"=2'

NOTE: ALL ELEVATIONS ARE IN REFERENCE TO THE MLLW DATUM.

60% SUBMITTAL







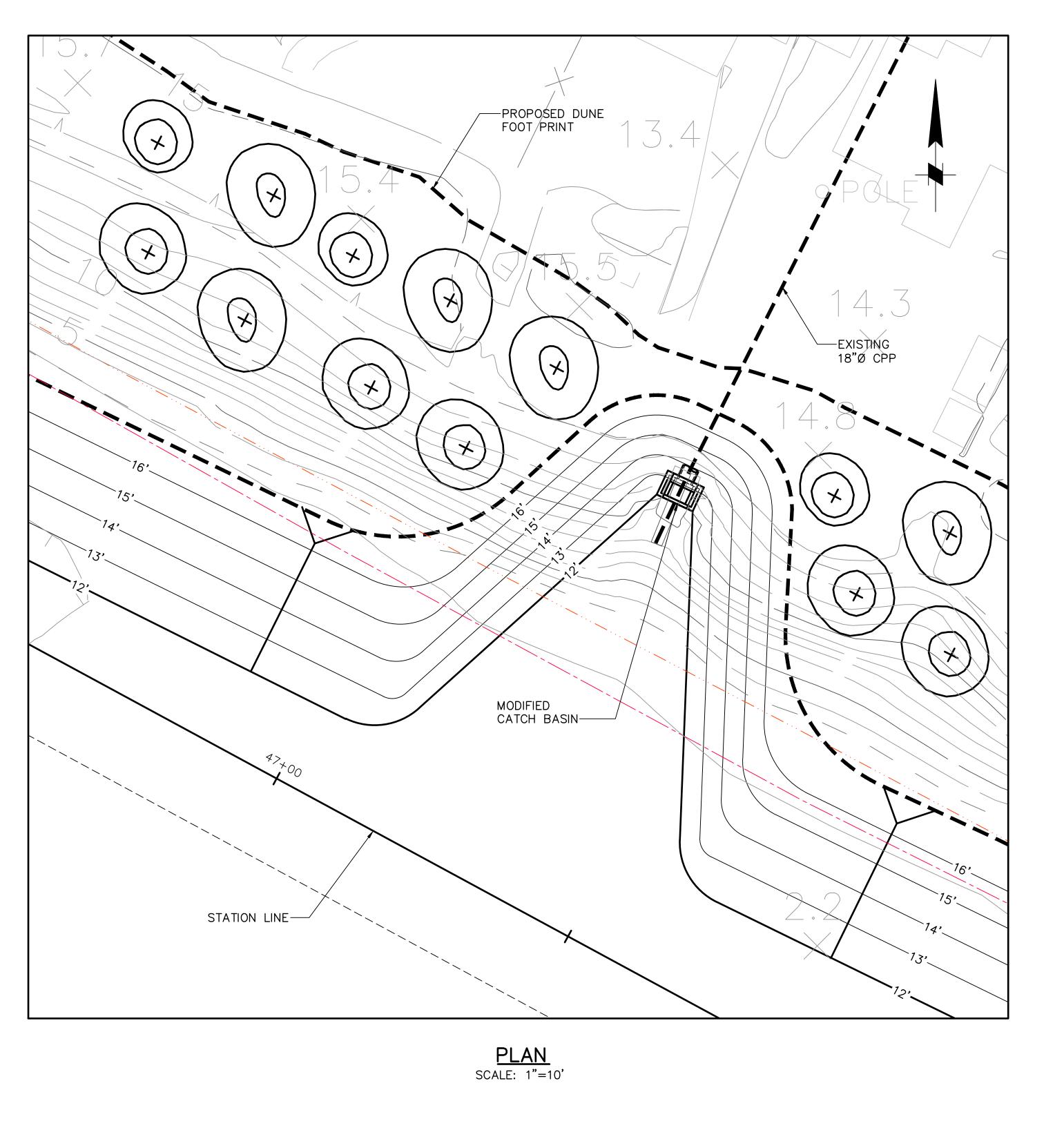


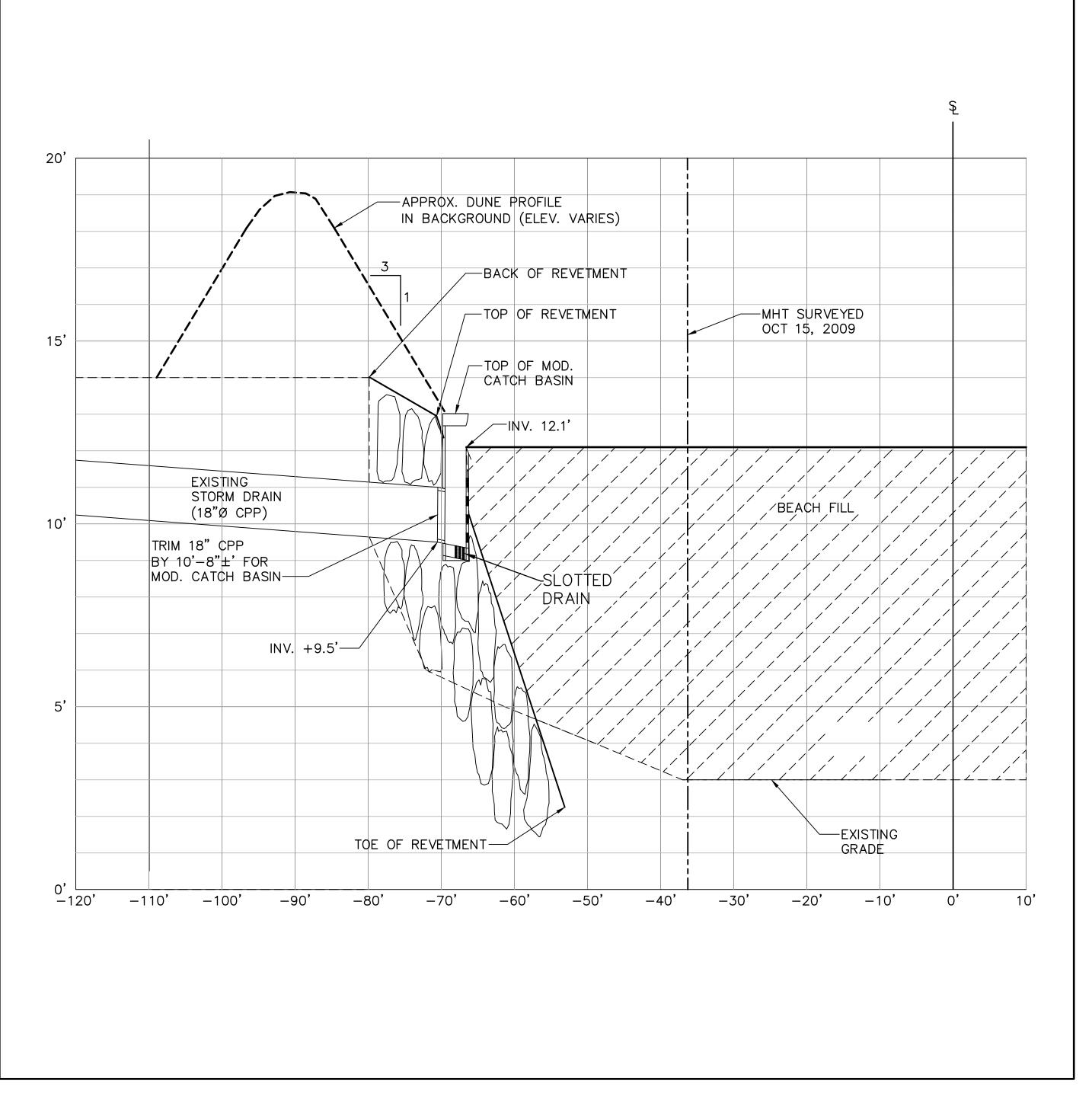
MOFFATT & NICHOL		
ысыед ву Aaron Holloway, Р.Е.	CHECKED BY Chris Webb	
AWN BY S. Salazar	IN CHARGE Russell Boudreau, P.E.	

BROAD BEACH RESTORATION PROJECT California State Lands Commission STORM DRAIN PLAN & PROFILE STA 44+21.70

AS SHOWN OCT. 2013 6935-02 17 OF 42

SD-2





PROFILE

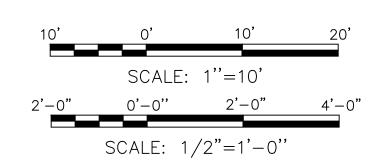
SCALE: HORIZ. = 1"=10'

VERT. = 1"=2'

NOTE: ALL ELEVATIONS ARE IN REFERENCE TO THE MLLW DATUM.

60% SUBMITTAL





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	NO.	REVISION	BY	DATE	
	NO.	REVISION	BY	DATE	



MOFFATT & NICHOL		
DESIGNED BY Aaron Holloway, P.E.	CHECKED BY Chris Webb	
DRAWN BY S. Salazar	IN CHARGE Russell Boudreau, P.E.	

BROAD BEACH RESTORATION PROJECT
California State Lands Commission
STORM DRAIN PLAN & PROFILE
STA 47+35.62

AS SHOWN OCT. 2013

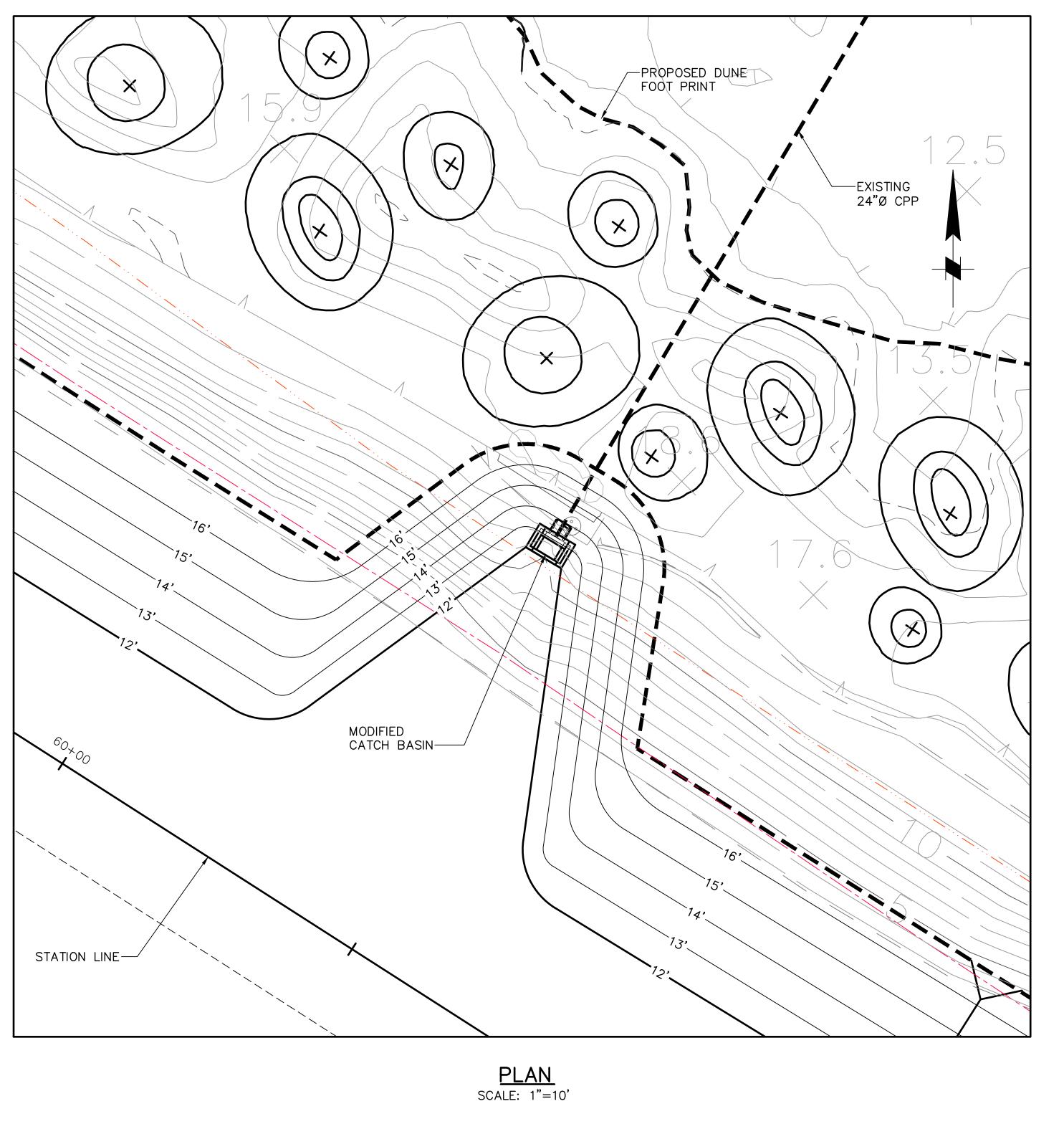
JOB NO.

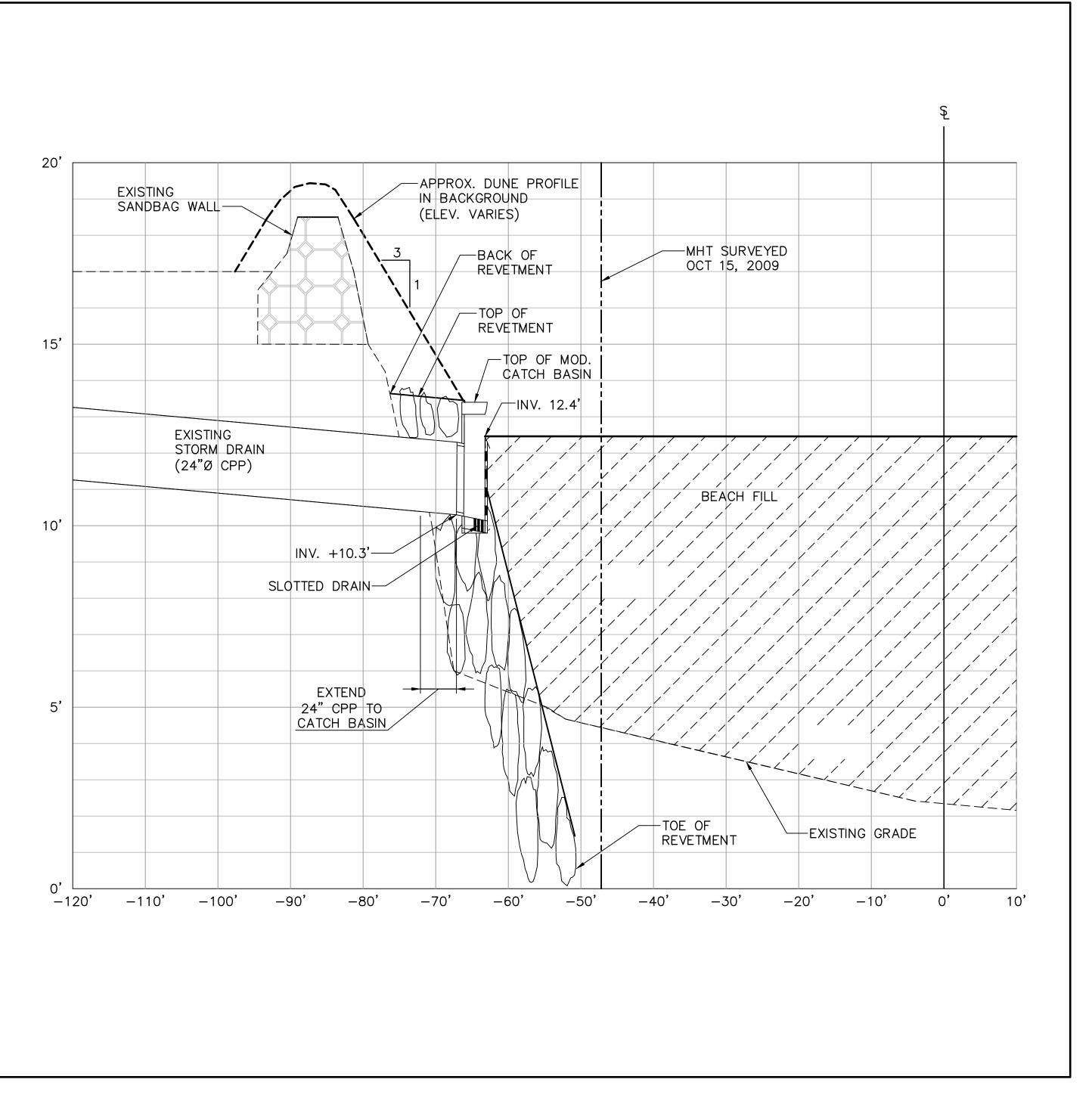
6935-02

SHEET

18 OF 42

SD-3



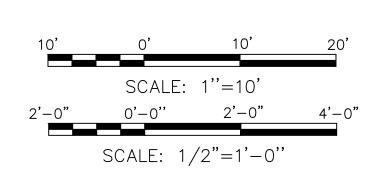


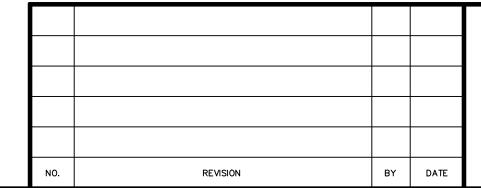
PROFILE

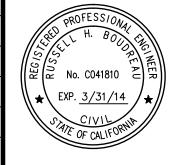
SCALE: HORIZ. = 1"=10" VERT. = 1"=2'

NOTE: ALL ELEVATIONS ARE IN REFERENCE TO THE MLLW DATUM.

60% SUBMITTAL







MOFFATT & NICHOL		
DESIGNED BY Aaron Holloway, P.E.	снескер ву Chris Webb	
DRAWN BY S. Salazar	IN CHARGE Russell Boudreau, P.E.	

BROAD BEACH RESTORATION PROJECT California State Lands Commission STORM DRAIN PLAN & PROFILE STA 60+44.75

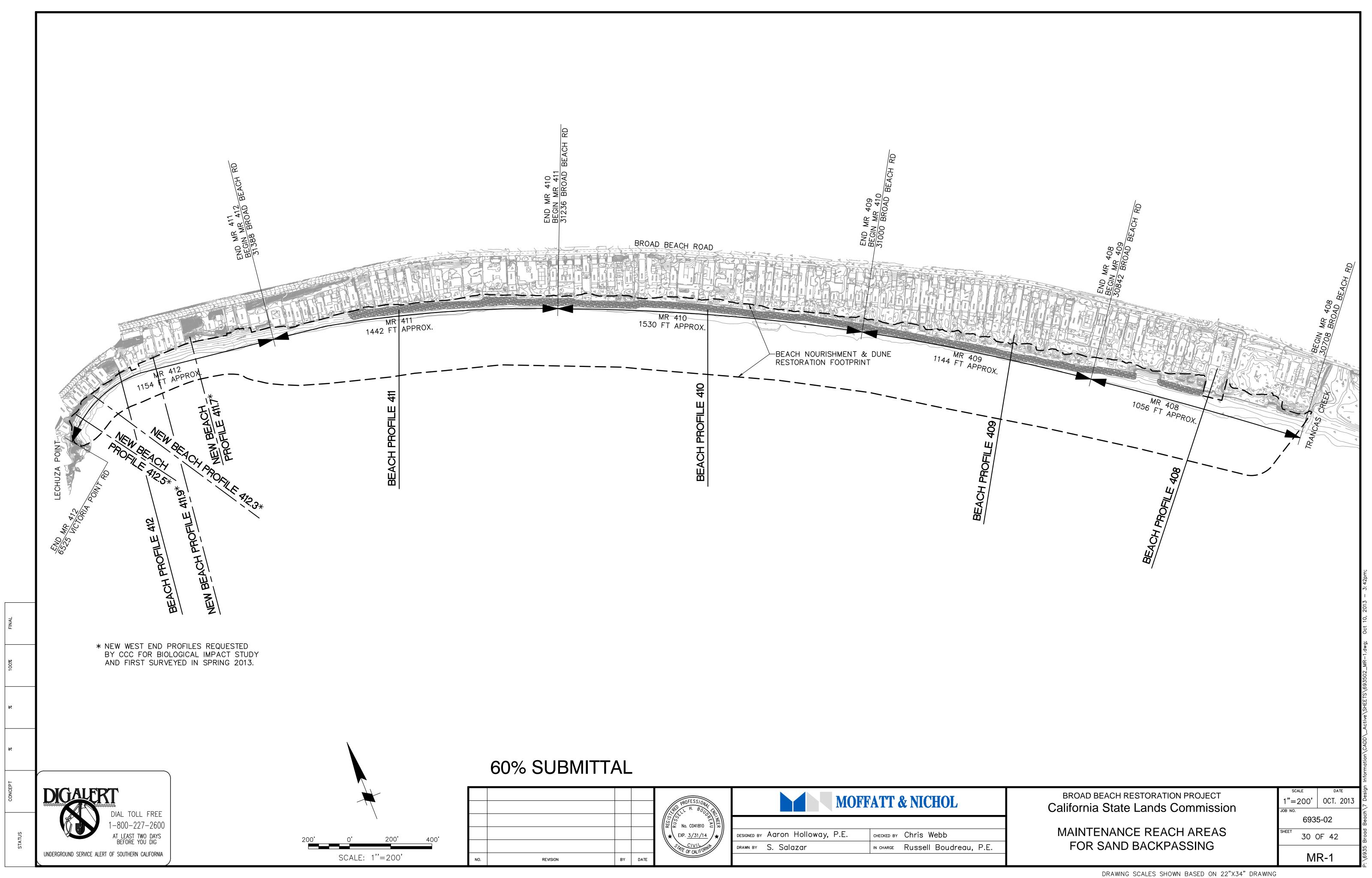
AS SHOWN OCT. 2013 6935-02 19 OF 42

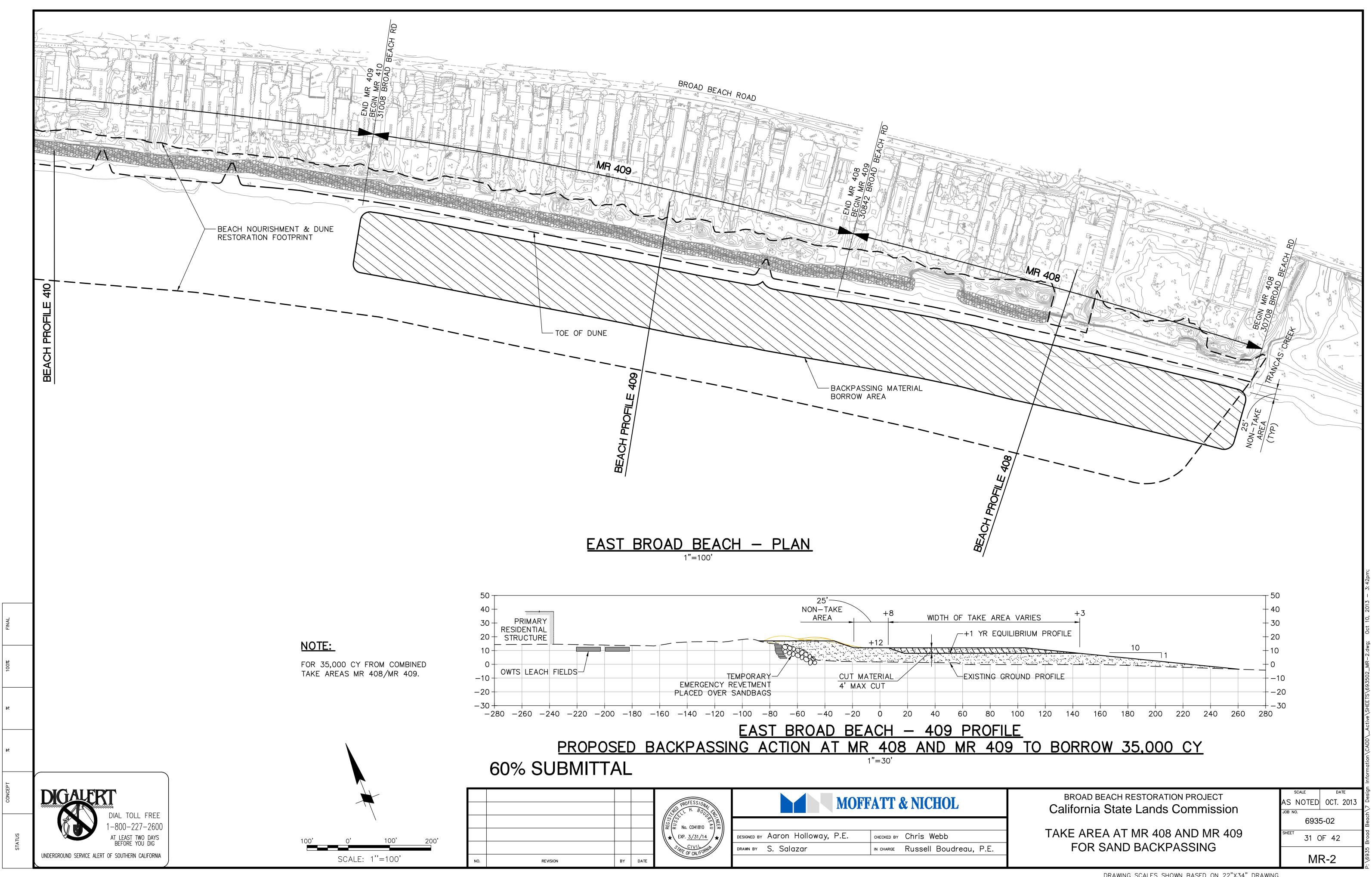
SD-4

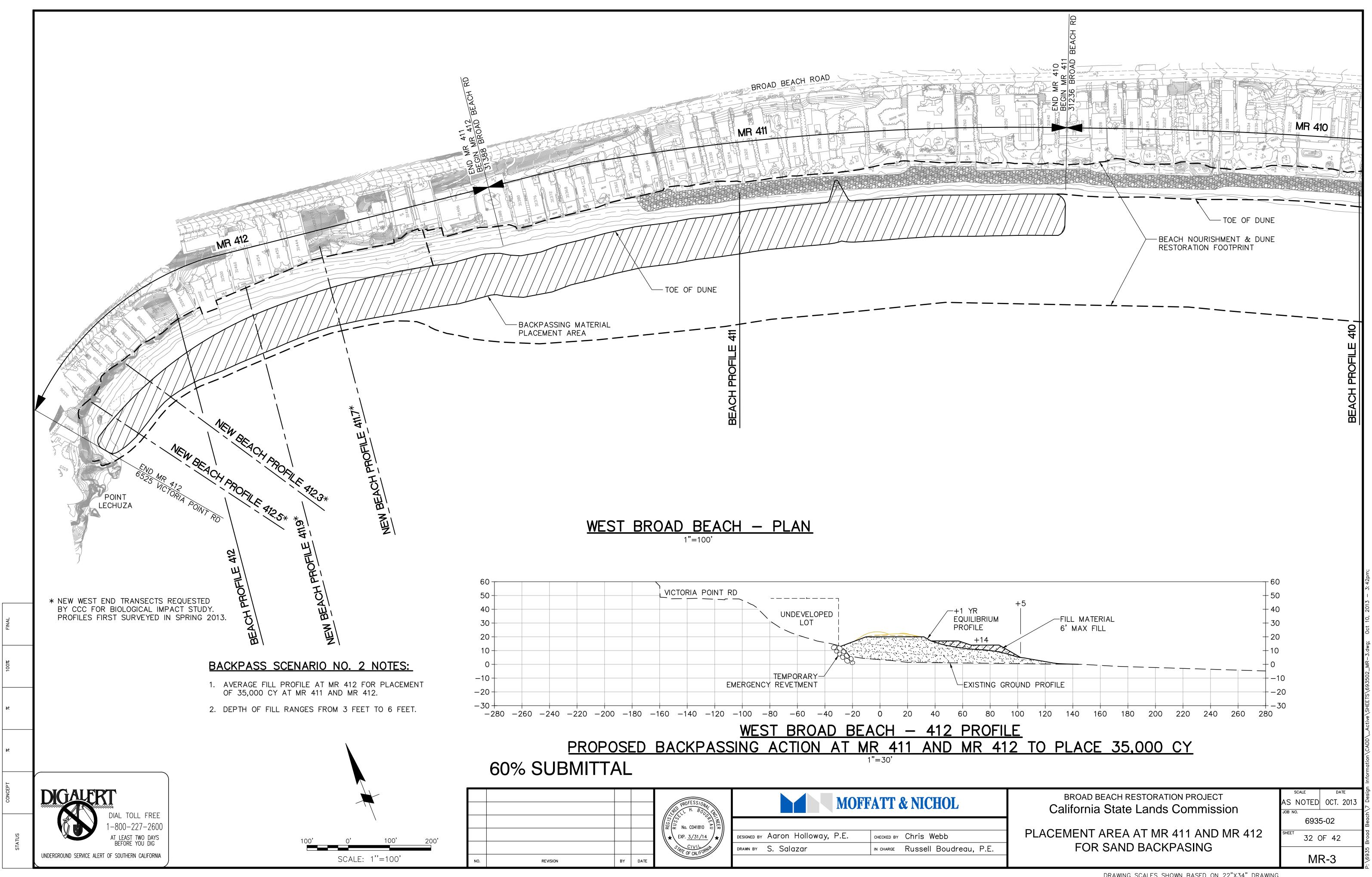
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

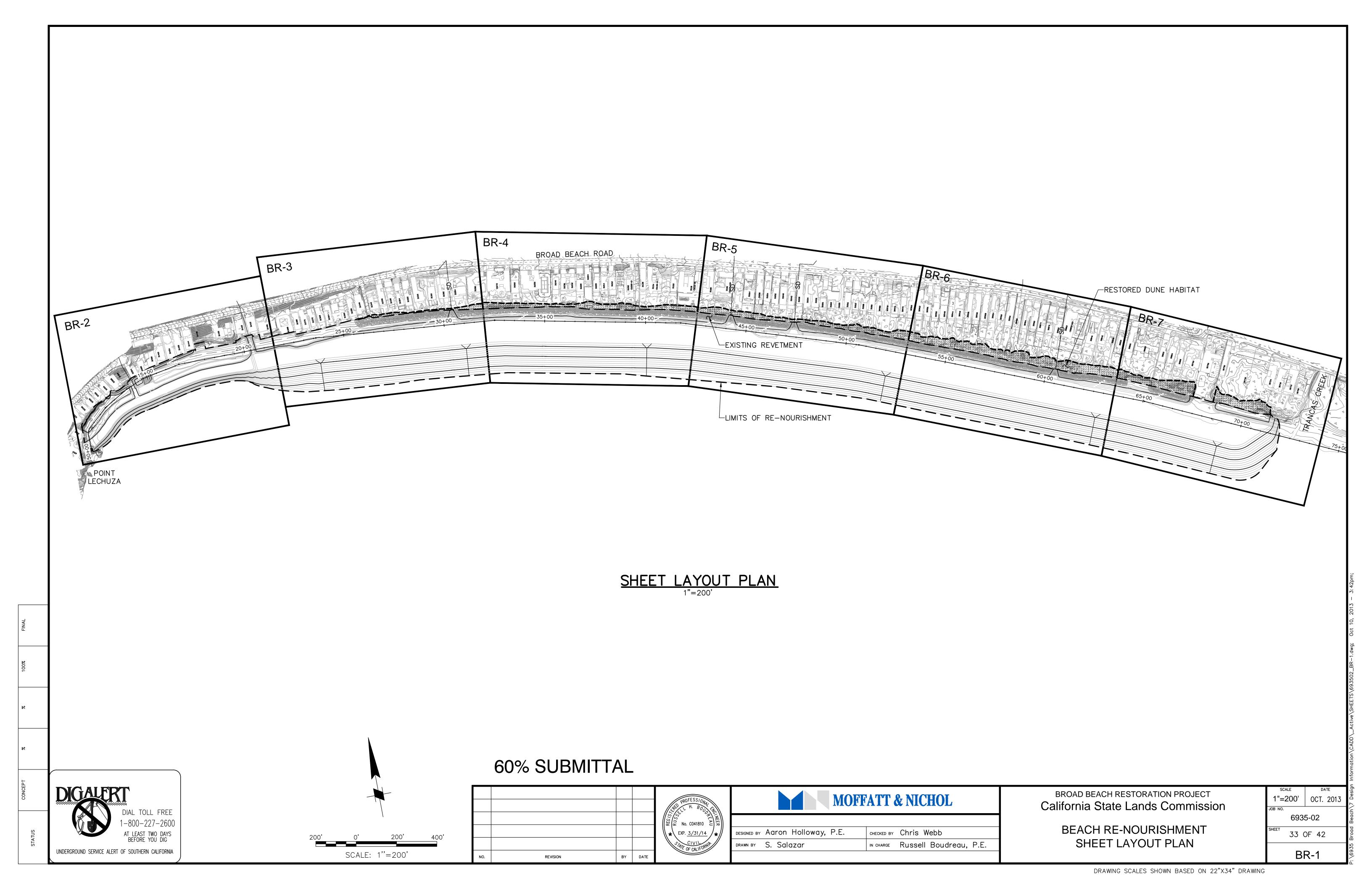
DIAL TOLL FREE

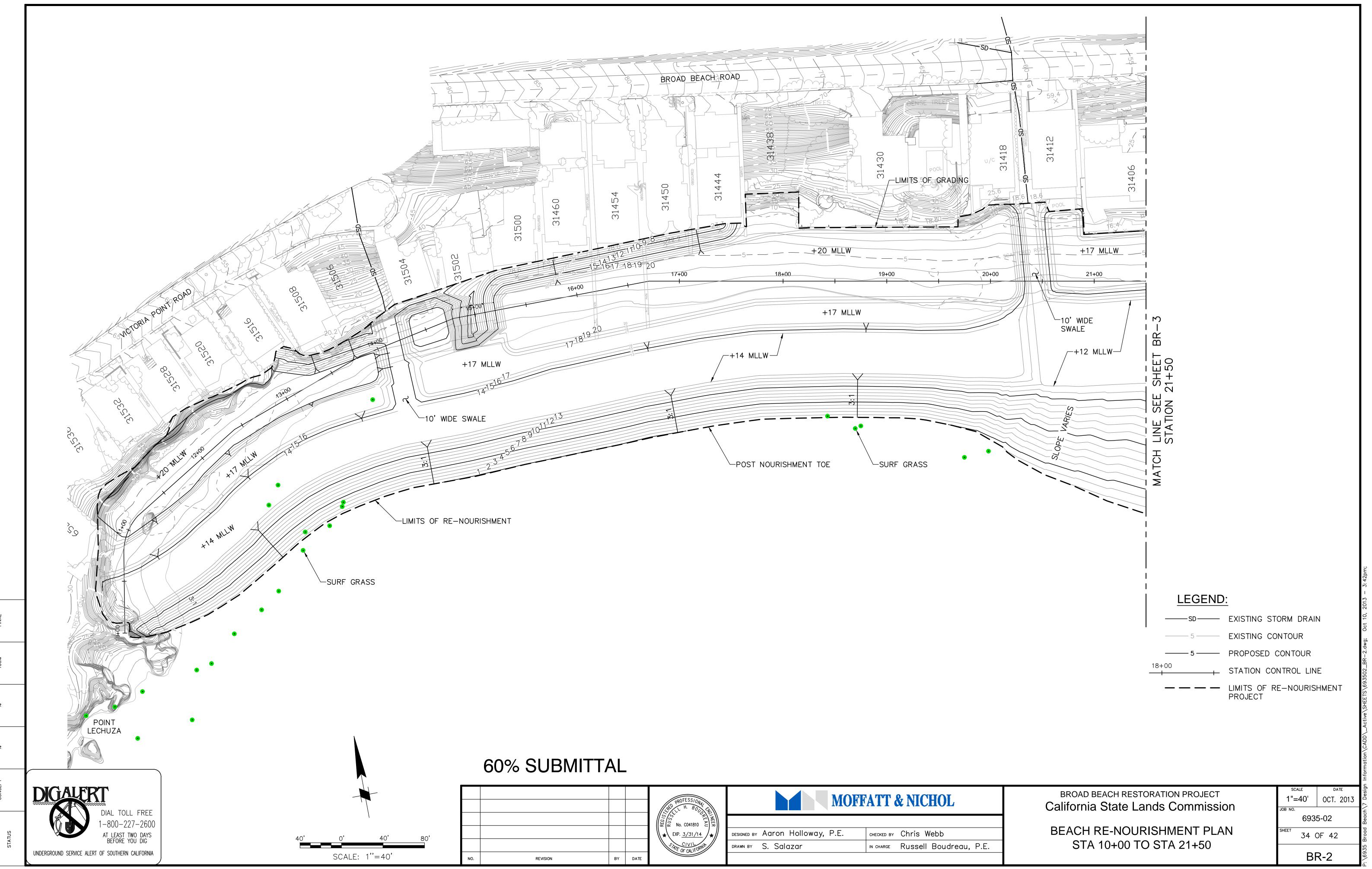
DIGALERT

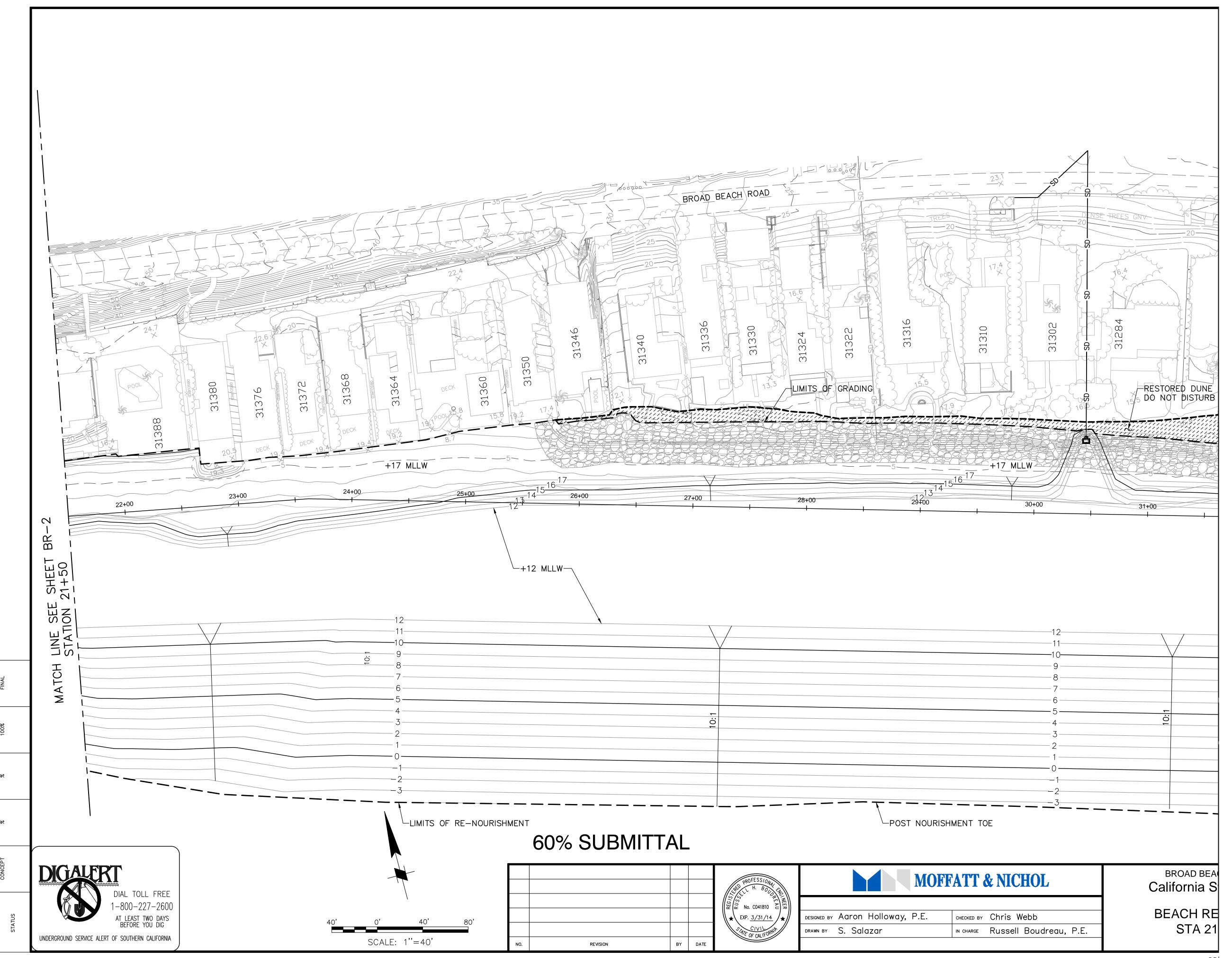


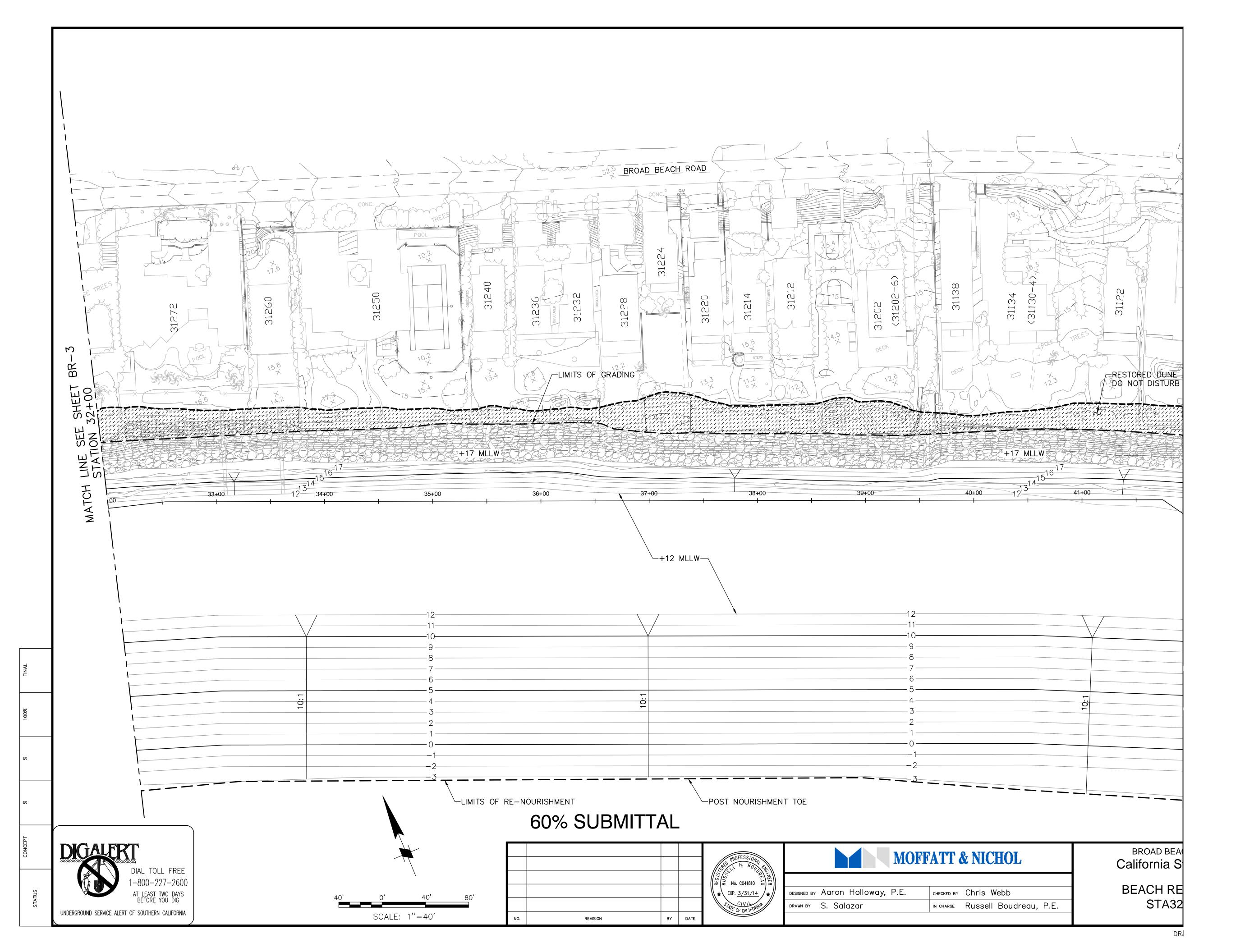


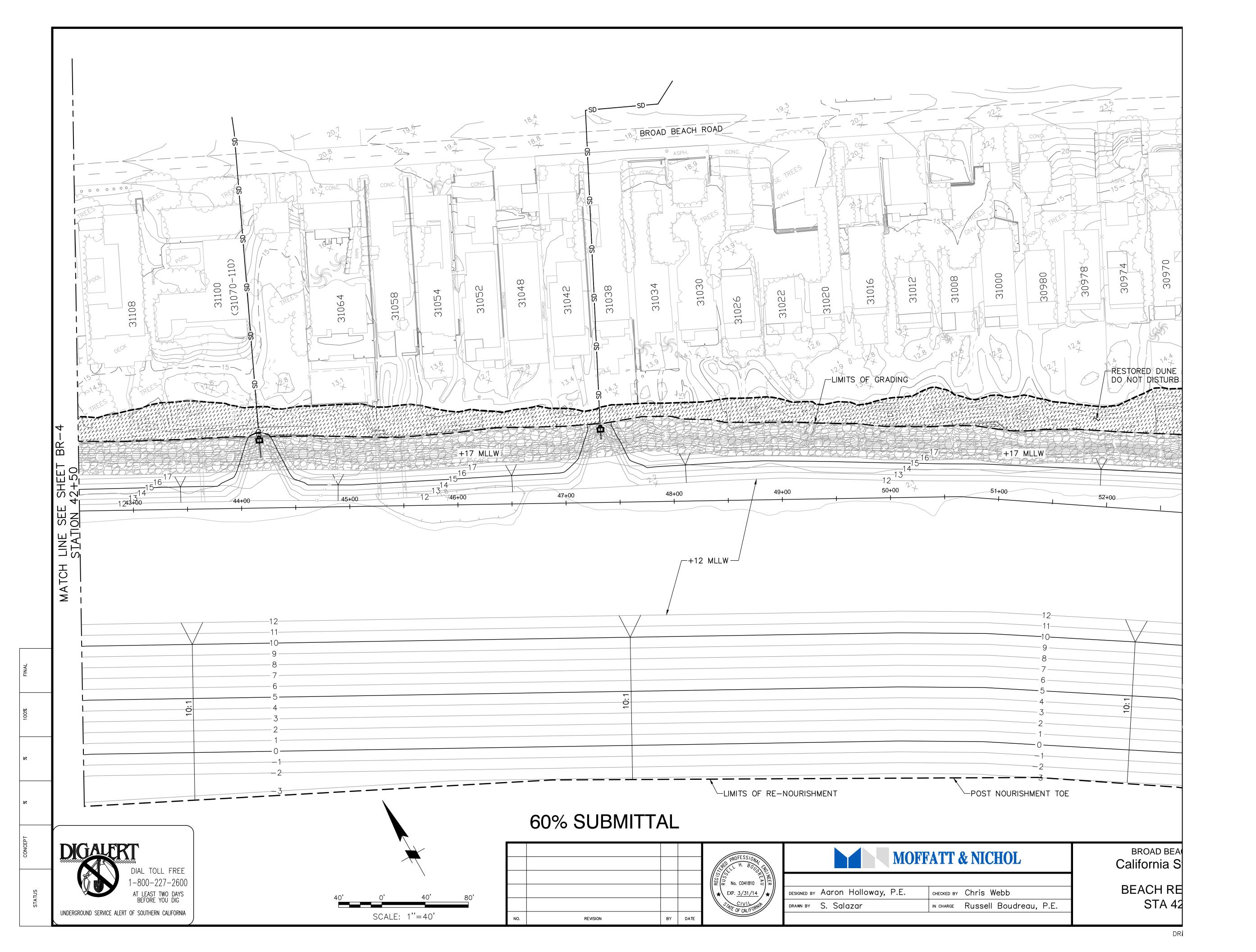


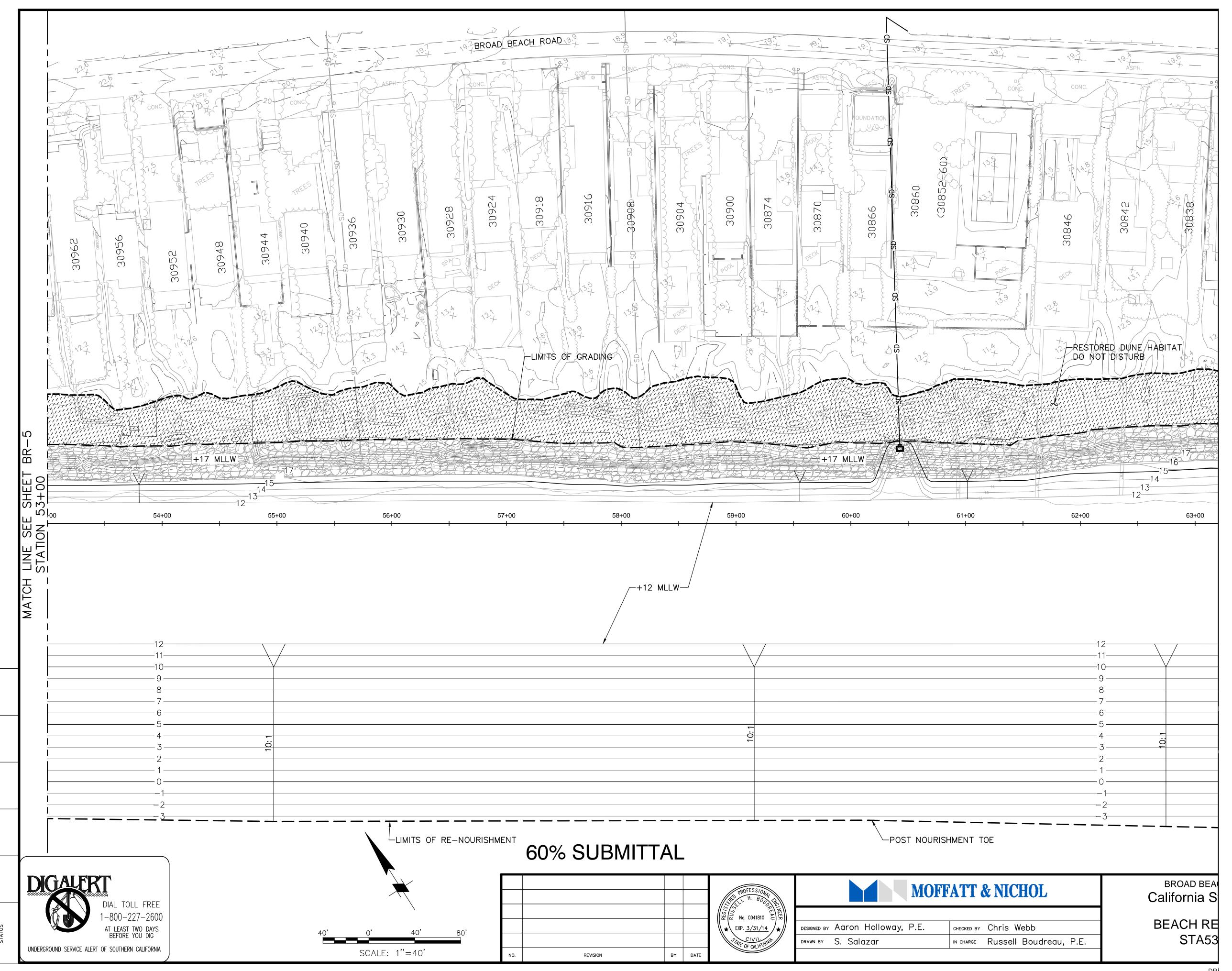


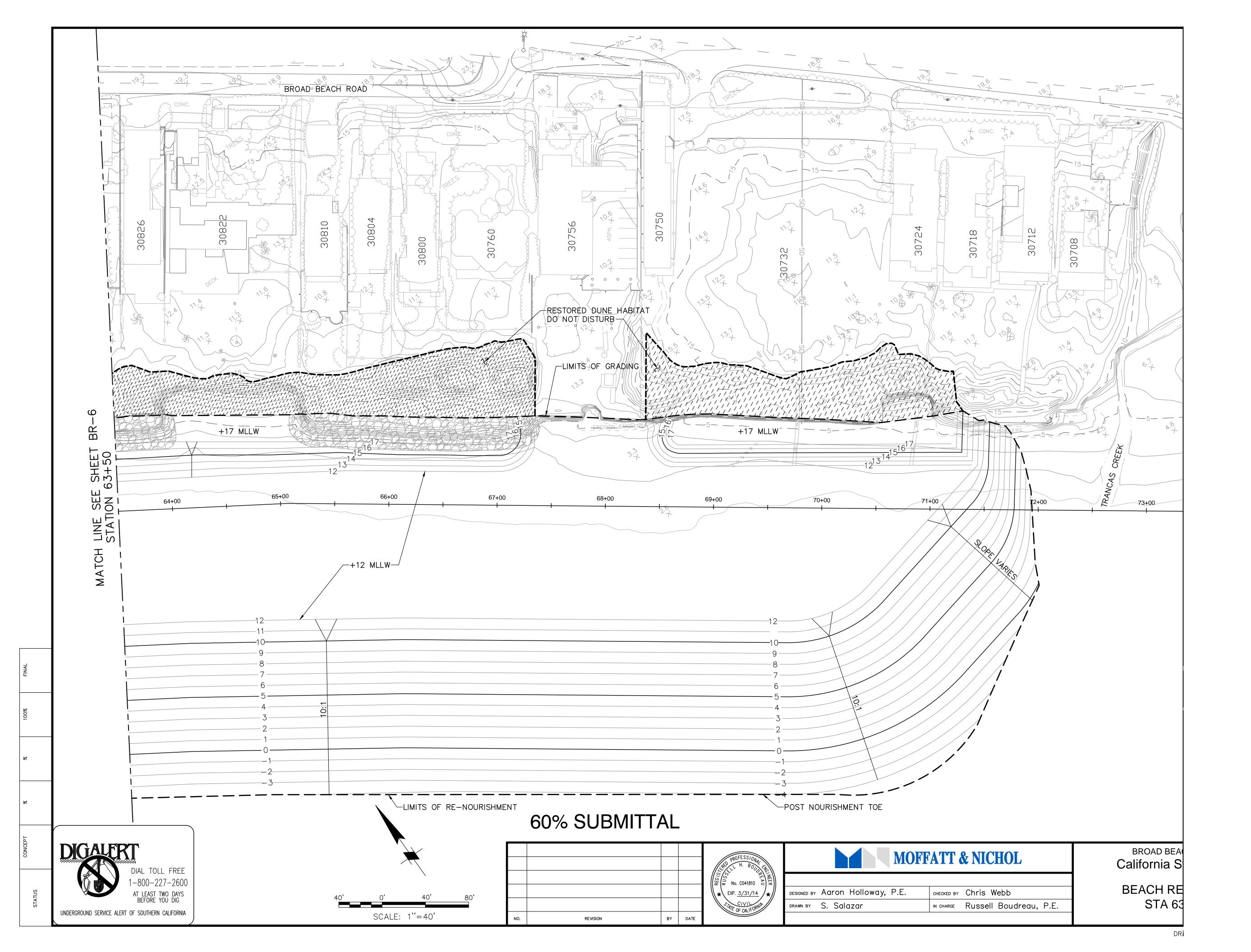


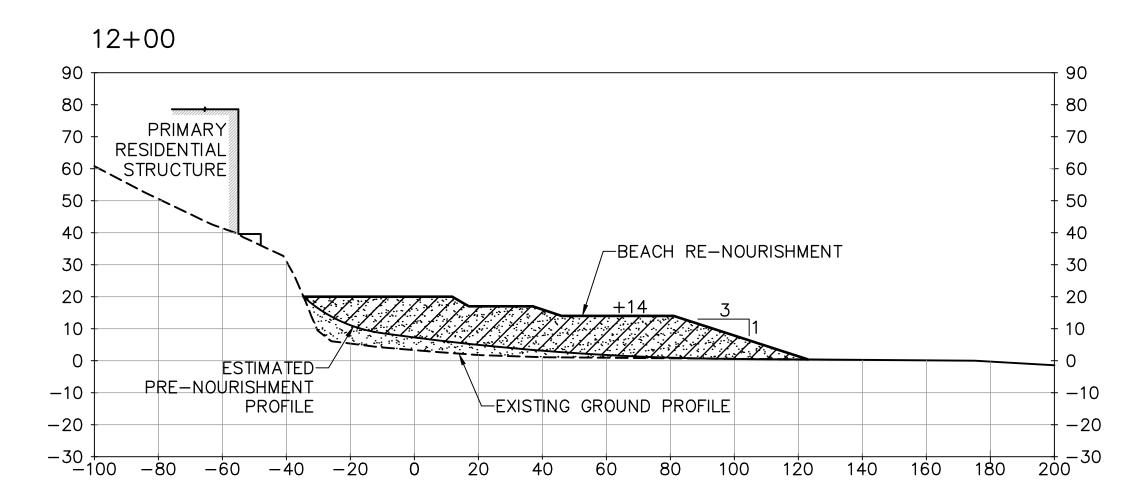


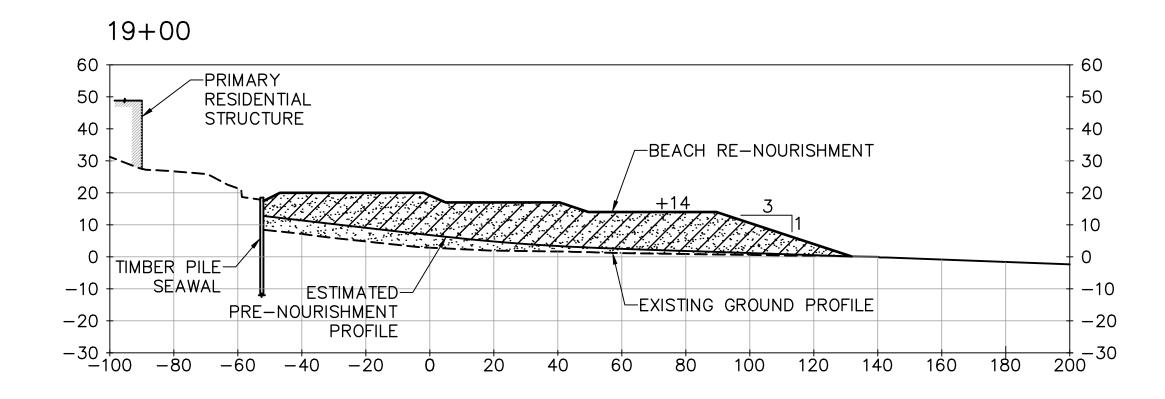


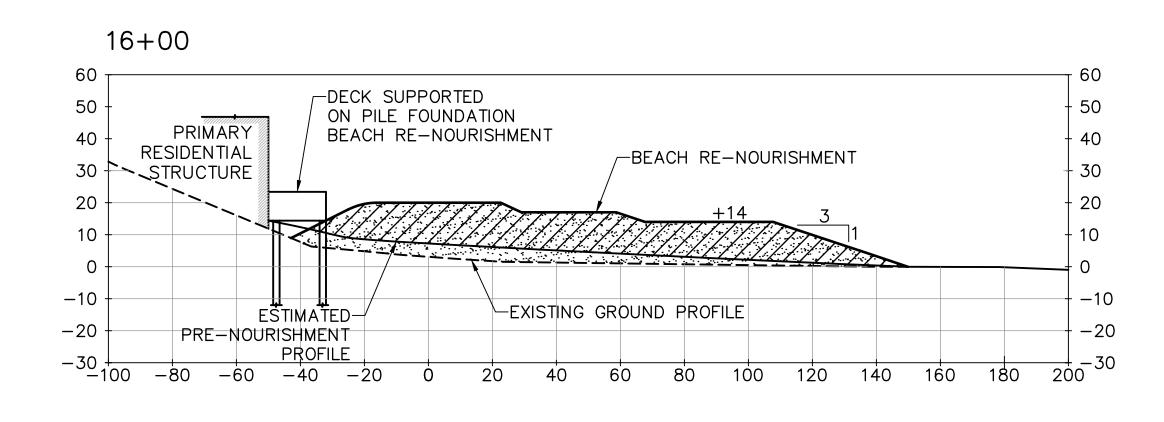


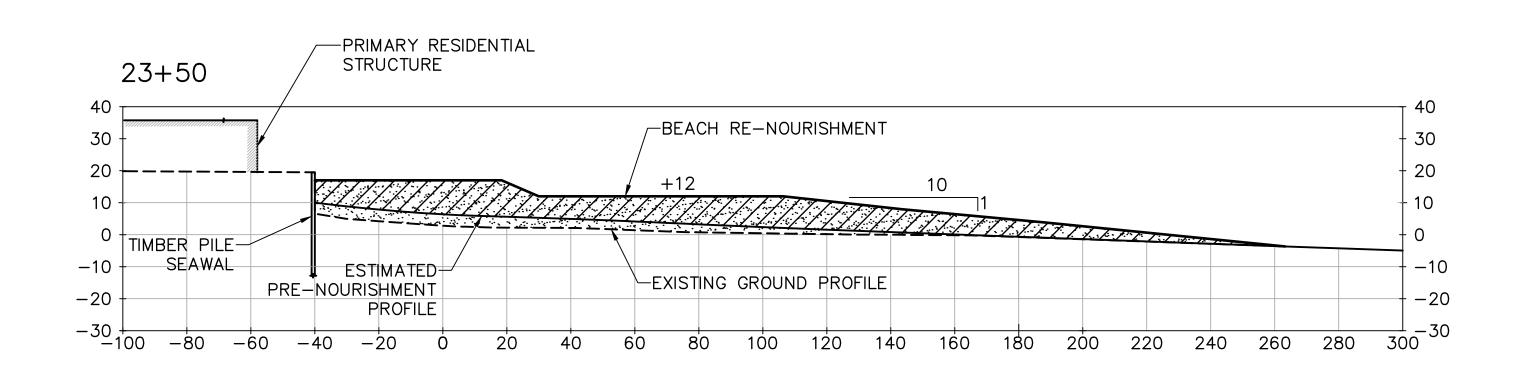












LEGEND:

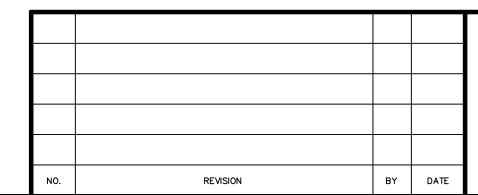
MATERIAL REMAINING FROM INITIAL NOURISHMENT

MAXIMUM RE-NOURISHMENT TEMPLATE

---- EXISTING GROUND PROFILE (PRE-PROJECT)

ESTIMATED PRE-NOURISHMENT PROFILE AT 10 YEARS

60% SUBMITTAL





MOFFATT & NICHOL			
Aaron Holloway, P.E.	CHECKED BY	Chris Webb	
S. Salazar	IN CHARGE	Russell Boudreau, P.E.	

BROAD BEACH RESTORATION PROJECT
California State Lands Commission
TYPICAL RE-NOURISHMENT SECTIONS
STA 12+00 TO STA 23+50

SCALE DATE

1"=30' OCT. 2013

JOB NO.

6935-02

SHEET 40 OF 42

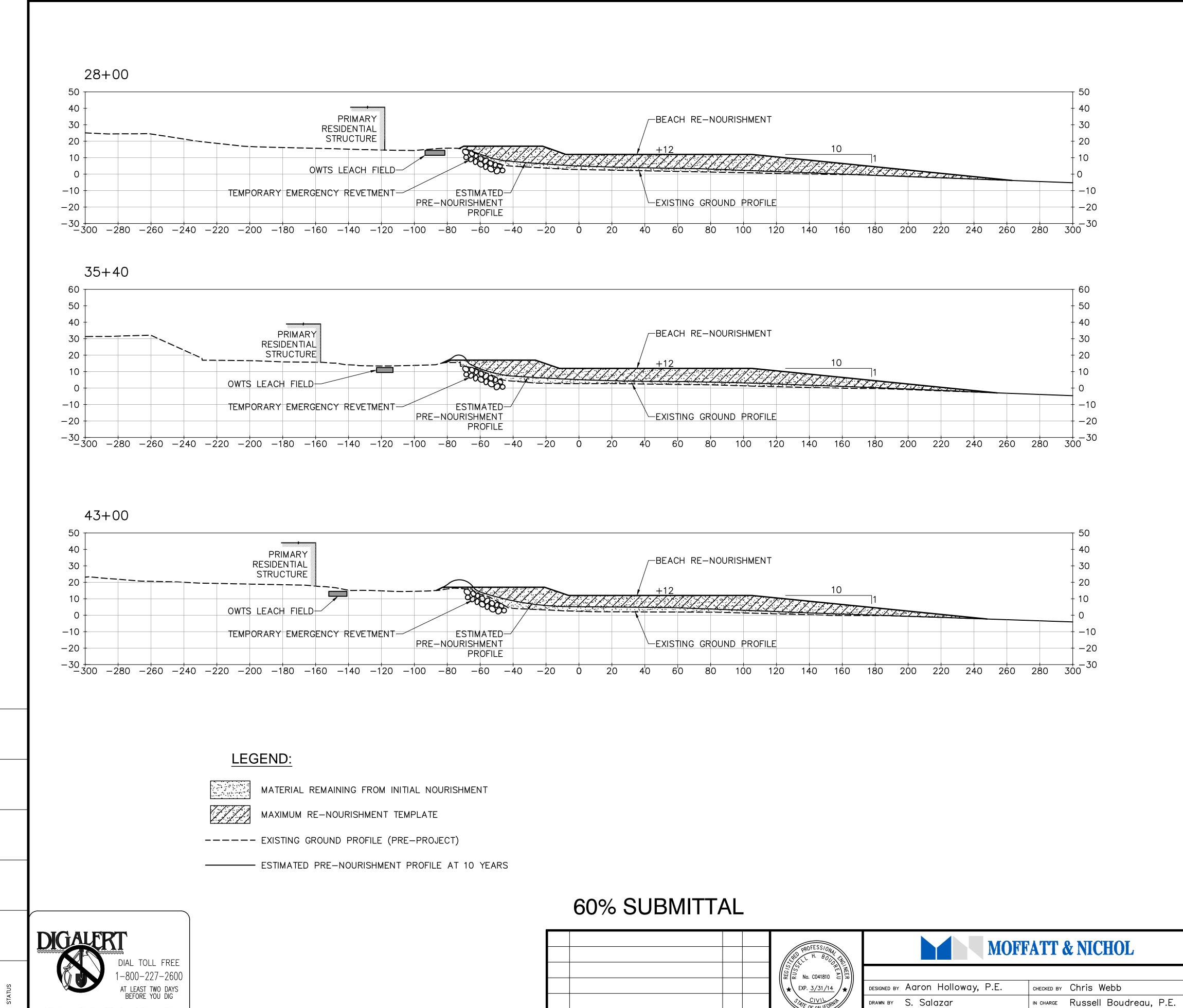
XS-4

DIAL TOLL FREE

1-800-227-2600

AT LEAST TWO DAYS
BEFORE YOU DIG

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA



BY DATE

UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

1"=30'

OCT. 2013

6935-02

41 OF 42

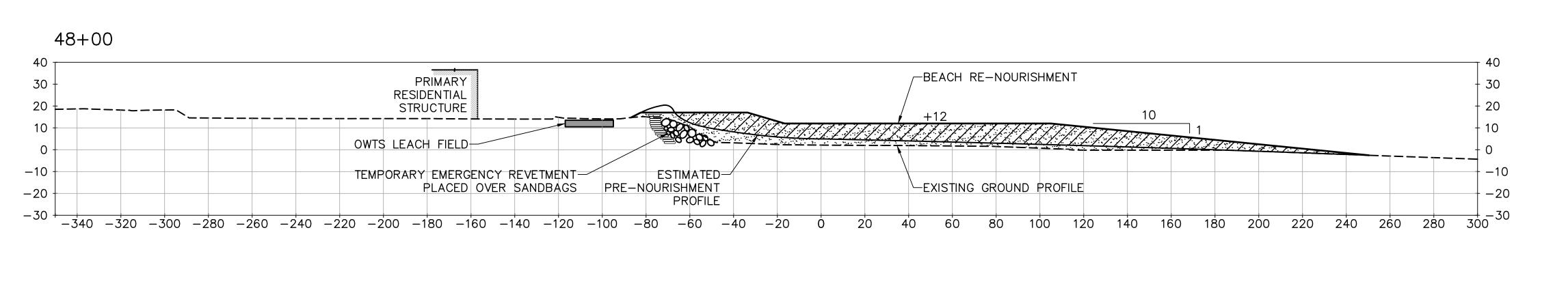
XS-5

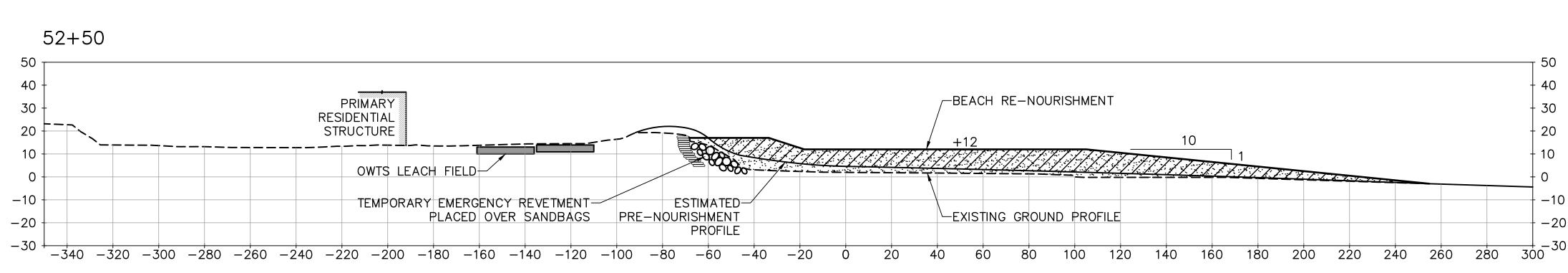
BROAD BEACH RESTORATION PROJECT

California State Lands Commission

TYPICAL RE-NOURISHMENT SECTIONS

STA 28+00 TO STA 43+00





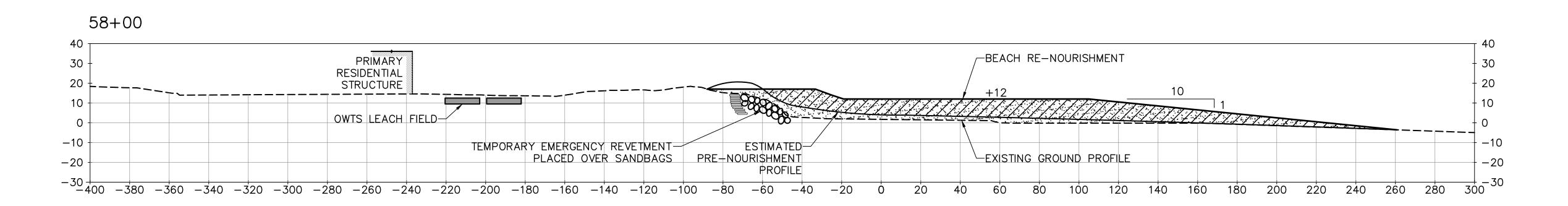
LEGEND:

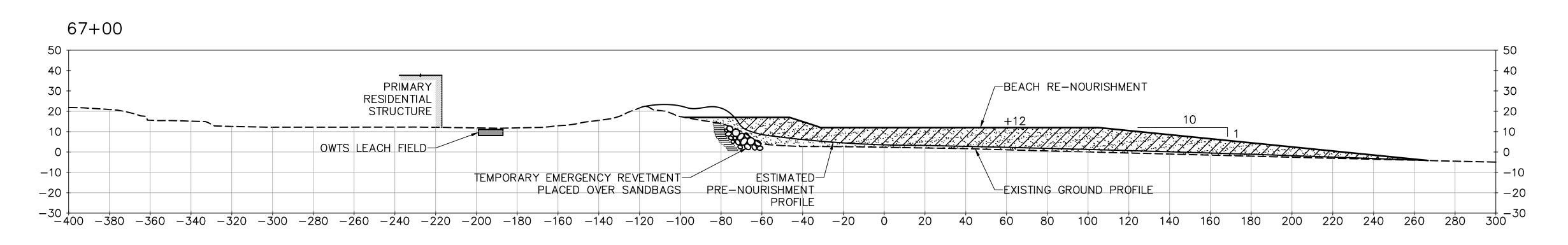
MATERIAL REMAINING FROM INITIAL NOURISHMENT

MAXIMUM RE-NOURISHMENT TEMPLATE

---- EXISTING GROUND PROFILE (PRE-PROJECT)

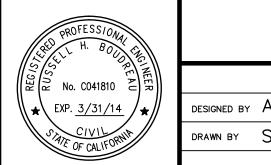
ESTIMATED PRE-NOURISHMENT PROFILE AT 10 YEARS





60% SUBMITTAL

NO. REVISION BY DATE



MOFFATT & NICHOL			
Aaron Holloway, P.E.	CHECKED BY	Chris Webb	
S. Salazar	IN CHARGE	Russell Boudreau, P.E.	

BROAD BEACH RESTORATION PROJECT
California State Lands Commission

TYPICAL RE-NOURISHMENT SECTIONS STA 48+00 TO STA 67+00 SCALE DATE
1"=30' OCT. 2013

JOB NO.
6935-02

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DIGALERT